

Cys	Glu	Ala	Gln	Arg	Cys	Ser	Gln	Glu	Cys	Ala	Asn	Ile	Tyr	Gly	Ser		
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Tyr	Gln	Cys	Tyr	Cys	Arg	Gln	Gly	Tyr	Gln	Leu	Ala	Glu	Asp	Gly	His		
			385				390						395				
acc	tgc	aca	gac	atc	gac	gag	tgt	gct	caa	ggc	gcc	ggc	atc	ctc	tgc		1368
Thr	Cys	Thr	Asp	Ile	Asp	Glu	Cys	Ala	Gln	Gly	Ala	Gly	Ile	Leu	Cys		
		400				405						410					
acc	ttc	cgc	tgt	ctc	aac	gtg	cca	ggg	agc	tac	cag	tgt	gca	tgc	cct		1416
Thr	Phe	Arg	Cys	Leu	Asn	Val	Pro	Gly	Ser	Tyr	Gln	Cys	Ala	Cys	Pro		
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gag	cag	ggc	tac	acc	atg	acg	gcc	aac	ggg	agg	tcc	tgc	aag	gac	gtg		1464
Glu	Gln	Gly	Tyr	Thr	Met	Thr	Ala	Asn	Gly	Arg	Ser	Cys	Lys	Asp	Val		
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Asp	Glu	Cys	Ala	Leu	Gly	Thr	His	Asn	Cys	Ser	Glu	Ala	Glu	Thr	Cys		
			450					455					460				
cac	aac	atc	cag	ggt	agc	ttc	cgc	tgc	ctg	cgc	ttc	gag	tgt	cct	ccc		1560
His	Asn	Ile	Gln	Gly	Ser	Phe	Arg	Cys	Leu	Arg	Phe	Glu	Cys	Pro	Pro		
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aac	tat	gtc	caa	gtc	tcc	aaa	acg	aag	tgc	gag	cgc	acc	acg	tgc	cat		1608
Asn	Tyr	Val	Gln	Val	Ser	Lys	Thr	Lys	Cys	Glu	Arg	Thr	Thr	Cys	His		
		480				485						490					
gac	ttc	ctg	gag	tgc	cag	aac	tgc	cca	gcg	cgc	atc	acg	cac	tac	cag		1656
Asp	Phe	Leu	Glu	Cys	Gln	Asn	Ser	Pro	Ala	Arg	Ile	Thr	His	Tyr	Gln		
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ctc	aac	ttc	cag	acg	ggc	ctc	ctg	gtg	cct	gcg	cat	atc	ttc	cgc	att		1704
Leu	Asn	Phe	Gln	Thr	Gly	Leu	Leu	Val	Pro	Ala	His	Ile	Phe	Arg	Ile		
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Gly	Pro	Ala	Pro	Ala	Phe	Thr	Gly	Asp	Thr	Ile	Ala	Leu	Asn	Ile	Ile		
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Lys	Gly	Asn	Glu	Glu	Gly	Tyr	Phe	Gly	Thr	Arg	Arg	Leu	Asn	Ala	Tyr		
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acg	ggt	gtg	gtc	tac	ctg	cag	cgg	gcc	gtg	ctg	gag	ccc	cgg	gac	ttt		1848
Thr	Gly	Val	Val	Tyr	Leu	Gln	Arg	Ala	Val	Leu	Glu	Pro	Arg	Asp	Phe		
		560					565					570					
gcc	ctg	gat	gtg	gag	atg	aag	ctc	tgg	agg	cag	ggc	tcc	gtc	acc	acc		1896
Ala	Leu	Asp	Val	Glu	Met	Lys	Leu	Trp	Arg	Gln	Gly	Ser	Val	Thr	Thr		
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ttc	ctg	gcc	aag	atg	cac	atc	ttc	ttc	acc	acc	ttt	gcc	ctg	tga	ggt		1944
Phe	Leu	Ala	Lys	Met	His	Ile	Phe	Phe	Thr	Thr	Phe	Ala	Leu	*			
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 atttttctc ctgcccctgg gggtttgggg ccggttctc cctcttctg aagcacaag 180
 tcccctcccc acctaccctt cctgcagatg gcttctcaaa ctcgggcatc atg gaa 236
 Met Glu
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 gag cgc ccc cta gac gca gtg gtg ccc ttc ctc ccg ctc cag cgg cac 284
 Glu Arg Pro Leu Asp Ala Val Val Pro Phe Leu Pro Leu Gln Arg His
 5 10 15
 cac gtc cgg cac tgc gtg ctc aac gag ctg gcc cag ctg ggc ctg gag 332
 His Val Arg His Cys Val Leu Asn Glu Leu Ala Gln Leu Gly Leu Glu
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 Pro Arg Asp Glu Val Val Gln Ala Val Leu Asp Ser Thr Thr Phe Phe
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 cct gaa gac gag cag ctc ttc tcc tcc aac ggc tgc aag acc gtg gcc 428
 Pro Glu Asp Glu Gln Leu Phe Ser Ser Asn Gly Cys Lys Thr Val Ala
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 Ser Arg Ile Ala Phe Phe Leu *
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 Met Pro Gly Ala
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 caa ccc gga gtg cac gcc ttg caa ctc aag ccc gtg tgc gtg tcg gac 161
 Gln Pro Gly Val His Ala Leu Gln Leu Lys Pro Val Cys Val Ser Asp
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 Ser Leu Lys Lys Gly Thr Lys Phe Val Lys Trp Asp Asp Asp Ser Thr
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 Ser Val Thr Pro Ile Ile Val Arg Thr Asp Pro Gln Gly Phe Phe Phe
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 Val Lys Asp Ala Arg Cys Gly Arg His Ala Lys Ala Pro Lys Asp Pro
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 Lys Leu Arg Glu Leu Leu Asp Val Gly Asn Ile Gly Arg Leu Glu Gln
 85 90 95 100
 cgc atg atc aca gtg gtg tat ggg cct gac ctc gtg aac atc tcc cat 449
 Arg Met Ile Thr Val Val Tyr Gly Pro Asp Leu Val Asn Ile Ser His
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 ttg aat ctc gtg gct ttc caa gaa gaa gtg gcc aag gaa tgg aca aat 497
 Leu Asn Leu Val Ala Phe Gln Glu Glu Val Ala Lys Glu Trp Thr Asn
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 gag gtt ttc agt ttg gca aca aac ctg ctg gcc caa aac atg tcc agg 545
 Glu Val Phe Ser Leu Ala Thr Asn Leu Leu Ala Gln Asn Met Ser Arg
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Asp Arg Lys Arg Val Glu Thr Ala Leu Glu Ala Cys Ser Leu Pro Ser	
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Ser Arg Asn Asp Ser Ile Pro Gln Glu Asp Phe Thr Pro Glu Val Tyr	
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Arg Val Phe Leu Asn Asn Leu Cys Pro Arg Pro Glu Ile Asp Asn Ile	
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Phe Ser Glu Phe Gly Ala Lys Ser Lys Pro Tyr Leu Thr Val Asp Gln	
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265 270 275	
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Lys Tyr Glu Pro Asn Asn Ser Leu Ala Arg Lys Gly Gln Ile Ser Val	
280 285 290	
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Asp Gly Phe Met Arg Tyr Leu Ser Gly Glu Glu Asn Gly Val Val Ser	
295 300 305	
cct gag aaa ctg gat ttg aat gaa gac atg tct cag ccc ctt tct cac	1073
Pro Glu Lys Leu Asp Leu Asn Glu Asp Met Ser Gln Pro Leu Ser His	
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Tyr Phe Ile Asn Ser Ser His Asn Thr Tyr Leu Thr Ala Gly Gln Leu	
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Ala Gly Asn Ser Ser Val Glu Met Tyr Arg Gln Val Leu Leu Ser Gly	
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Cys Arg Cys Val Glu Leu Asp Cys Trp Lys Gly Arg Thr Ala Glu Glu	
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Lys Glu Val Ile Glu Ala Ile Ala Glu Cys Ala Phe Lys Thr Ser Pro	
390 395 400	

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Phe Pro Ile Leu Leu Ser Phe Glu Asn His Val Asp Ser Pro Lys Gln	
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Lys Ser His Lys Ser Ser Glu Gly Ser Gly Lys Lys Lys Leu Ser Glu	
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Gln Ala Ser Asn Thr Tyr Ser Asp Ser Ser Ser Met Phe Glu Pro Ser	
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Ser Pro Gly Ala Gly Glu Ala Asp Thr Glu Ser Asp Asp Asp Asp Asp	
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Asp Asp Asp Cys Lys Lys Ser Ser Met Asp Glu Gly Thr Ala Gly Ser	
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His Phe Asp Pro Phe Thr Glu Gly Ile Val Asp Gly Ile Val Ala Asn	
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Thr Leu Ser Val Lys Ile Ile Ser Gly Gln Phe Leu Ser Asp Lys Lys	
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Thr Leu Ala Cys Leu Arg Ile Ala Val Tyr Glu Glu Gly Gly Lys Phe	
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Ile Gly His Arg Ile Leu Pro Val Gln Ala Ile Arg Pro Gly Tyr His	
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Val Phe Val Tyr Ile Glu Val Lys Asp Tyr Val Pro Asp Thr Tyr Ala	
790 795 800	
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cacttaactc tgtctttata agttcctatt ttagatggaa taagagaaac aaattatatc	5262
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agaaaaatgt aacttagaga gtaacacatg aacattgaag ttaaaaccca gaagccagat 5382
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<210> 872
<211> 911
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (357) .. (908)

<400> 872

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 gtatactttg ttctatcaca ttatatgcaa gattattatt aaatcatgta cttgattaca 180
 gatctgtcta acttgactag ctccctaagtt ttttggttaa ttgtggatca tgagtttctt 240
 gagggcaaag cccatgtcta tctctagcac agtacaatgc ctggaacaca gtacatactt 300
 ttcattttctg acttaattaa aaagaagggt cactcagctt ttccctgaat ctttaa 356
 atg aaa ttt gat ttt tat tct ttc ttt gat ggt aca gca aag cgt aga 404
 Met Lys Phe Asp Phe Tyr Ser Phe Phe Asp Gly Thr Ala Lys Arg Arg
 1 5 10 15
 agg ttt tcc tcc aaa cca gtt gta ctc aca gaa gcc cag aaa caa ctt 452
 Arg Phe Ser Ser Lys Pro Val Val Leu Thr Glu Ala Gln Lys Gln Leu
 20 25 30
 atg ata tgc cac cta cct cag gtt ctc aga ctg cac ctc aaa cga ttc 500
 Met Ile Cys His Leu Pro Gln Val Leu Arg Leu His Leu Lys Arg Phe
 35 40 45
 agg tgg tca gga cgt aat aac cga gag aag att ggt gtt cat gtt ggc 548
 Arg Trp Ser Gly Arg Asn Asn Arg Glu Lys Ile Gly Val His Val Gly
 50 55 60
 ttt gag gaa atc tta aac atg gag ccc tat tgc tgc agg gag acc ctg 596
 Phe Glu Glu Ile Leu Asn Met Glu Pro Tyr Cys Cys Arg Glu Thr Leu
 65 70 75 80
 aaa tcc ctc aga cca gaa tgc ttt atc tat gac ttg tcc gcg gtg gtg 644
 Lys Ser Leu Arg Pro Glu Cys Phe Ile Tyr Asp Leu Ser Ala Val Val
 85 90 95
 atg cac cat ggg aaa gga ttt ggc tca ggg cac tac act gcc tac tgc 692
 Met His His Gly Lys Gly Phe Gly Ser Gly His Tyr Thr Ala Tyr Cys
 100 105 110
 tat aat tct gaa gga ggg ttc tgg gta cac tgc aat gat tcc aaa cta 740
 Tyr Asn Ser Glu Gly Gly Phe Trp Val His Cys Asn Asp Ser Lys Leu
 115 120 125
 agc atg tgc act atg gat gaa gta tgc aag gct caa gct tat atc ttg 788
 Ser Met Cys Thr Met Asp Glu Val Cys Lys Ala Gln Ala Tyr Ile Leu
 130 135 140
 ttt tat acc caa cga gtt act gag aat gga cat tct aaa ctt ttg cct 836
 Phe Tyr Thr Gln Arg Val Thr Glu Asn Gly His Ser Lys Leu Leu Pro
 145 150 155 160
 cca gag ctc ctg ttg ggg agc caa cat ccc aat gaa gac gct gat acc 884
 Pro Glu Leu Leu Leu Gly Ser Gln His Pro Asn Glu Asp Ala Asp Thr
 165 170 175
 tcg tct aat gaa atc ctt agc tga tcc 911
 Ser Ser Asn Glu Ile Leu Ser *
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<211> 603
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (120) .. (527)

<400> 873

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ttcccggttg cgggacagtt tttttttctt ttttaaaaca gacacagcta ctgagtgca      119
atg ccg cct cca cag aaa atc cca agc gtc aga ccc ttc aag cag agg      167
Met Pro Pro Pro Gln Lys Ile Pro Ser Val Arg Pro Phe Lys Gln Arg
   1             5             10             15

aaa agc ttg gca atc aga caa gag gaa gtt gct gga atc cgg gca aag      215
Lys Ser Leu Ala Ile Arg Gln Glu Glu Val Ala Gly Ile Arg Ala Lys
           20             25             30

ttc ccc aac aaa atc ccg gtg gta gtg gag cgc tac ccc agg gag acg      263
Phe Pro Asn Lys Ile Pro Val Val Val Glu Arg Tyr Pro Arg Glu Thr
           35             40             45

ttc ctg ccc ccg ctg gac aaa acc aag ttc ctg gtc ccg cag gag ctg      311
Phe Leu Pro Pro Leu Asp Lys Thr Lys Phe Leu Val Pro Gln Glu Leu
           50             55             60

acc atg acc cag ttc ctc agc atc atc cgg agc cgc atg gtc ctg aga      359
Thr Met Thr Gln Phe Leu Ser Ile Ile Arg Ser Arg Met Val Leu Arg
           65             70             75             80

gcc acg gaa gcc ttt tac ttg ctg gtg aac aac aag agc ctg gtc agc      407
Ala Thr Glu Ala Phe Tyr Leu Leu Val Asn Asn Lys Ser Leu Val Ser
           85             90             95

atg agc gca acc atg gca gag atc tac aga gac tgc atc cag cca tat      455
Met Ser Ala Thr Met Ala Glu Ile Tyr Arg Asp Cys Ile Gln Pro Tyr
           100            105            110

aac cgt att cta aat aag aaa tgg ttg gct tgt gtg atg gtt ttg tgt      503
Asn Arg Ile Leu Asn Lys Lys Trp Leu Ala Cys Val Met Val Leu Cys
           115            120            125

aat gag cta gag ata ata ttt taa gtgtcttctg tggtatatgt gggagggcca      557
Asn Glu Leu Glu Ile Ile Phe *
           130            135

ttaaggagtg ggtttcactc cctgcatgtg ggcaggtgtc catcta      603

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<210> 874
 <211> 1739
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (380) .. (1654)

<400> 874

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tgtaaagtgt taagacaata tcctataaaa tgcatttttta ggaagttttg cattactttc	180
ttcctaagtc ttggtaaagt tatataatta gtaccttgaa aaaaataaag tgaaaagcct	240
tttggggact ttagacttta gtgtttaaat gtaattatTT ttatttgttt ttggtttatt	300
ttttatTTTT atTTTTtttg gccgtgggta taatcttcag catctgcaag aaggacgaaa	360
agctcaacaa tatcttgac atg tgc tgg aaa cag atg gat aat agt aaa aag	412
Met Cys Trp Lys Gln Met Asp Asn Ser Lys Lys	
1 5 10	
aag ttt gaa aga gaa tgt aga gag gca gaa aag gca caa cag agt tat	460
Lys Phe Glu Arg Glu Cys Arg Glu Ala Glu Lys Ala Gln Gln Ser Tyr	
15 20 25	
gaa aga ttg gat aat gat act aat gca acc aag gca gat gtt gaa aag	508
Glu Arg Leu Asp Asn Asp Thr Asn Ala Thr Lys Ala Asp Val Glu Lys	
30 35 40	
gcc aaa cag cag ttg aat ctg cgt acg cat atg gcc gat gaa aat aaa	556
Ala Lys Gln Gln Leu Asn Leu Arg Thr His Met Ala Asp Glu Asn Lys	
45 50 55	
aat gaa tat gct gca caa tta caa aac ttt aat gga gaa caa cat aaa	604
Asn Glu Tyr Ala Ala Gln Leu Gln Asn Phe Asn Gly Glu Gln His Lys	
60 65 70 75	
cat ttt tat gta gtg att cct cag att tac aag caa cta caa gaa atg	652
His Phe Tyr Val Val Ile Pro Gln Ile Tyr Lys Gln Leu Gln Glu Met	
80 85 90	
gac gaa cga agg act att aaa ctc agt gag tgt tac aga gga ttt gct	700
Asp Glu Arg Arg Thr Ile Lys Leu Ser Glu Cys Tyr Arg Gly Phe Ala	
95 100 105	
gac tca gaa cgc aaa gtt att ccc atc att tca aaa tgt ttg gaa gga	748
Asp Ser Glu Arg Lys Val Ile Pro Ile Ile Ser Lys Cys Leu Glu Gly	
110 115 120	
atg att ctt gca gca aaa tca gtt gat gaa aga aga gac tct caa atg	796
Met Ile Leu Ala Ala Lys Ser Val Asp Glu Arg Arg Asp Ser Gln Met	
125 130 135	
gtg gta gac tcc ttc aaa tct ggt ttt gaa cct cca gga gac ttt cca	844
Val Val Asp Ser Phe Lys Ser Gly Phe Glu Pro Pro Gly Asp Phe Pro	
140 145 150 155	
ttt gaa gat tac agt caa cat ata tat aga acc att tct gat ggg act	892
Phe Glu Asp Tyr Ser Gln His Ile Tyr Arg Thr Ile Ser Asp Gly Thr	
160 165 170	
atc agt gca tcc aaa cag gag agt ggg aag atg gat gcc aaa acc aca	940
Ile Ser Ala Ser Lys Gln Glu Ser Gly Lys Met Asp Ala Lys Thr Thr	
175 180 185	
gta gga aag gcc aag ggc aaa ttg tgg ctc ttt gga aag aag cca aag	988
Val Gly Lys Ala Lys Gly Lys Leu Trp Leu Phe Gly Lys Lys Pro Lys	
190 195 200	
ggc cca gca cta gaa gat ttc agt cat ctg cca cca gaa cag aga cgt	1036

Gly	Pro	Ala	Leu	Glu	Asp	Phe	Ser	His	Leu	Pro	Pro	Glu	Gln	Arg	Arg		
205						210					215						
aaa	aaa	cta	cag	cag	cgc	att	gat	gaa	ctt	aac	aga	gaa	cta	cag	aaa	1084	
Lys	Lys	Leu	Gln	Gln	Arg	Ile	Asp	Glu	Leu	Asn	Arg	Glu	Leu	Gln	Lys		
220					225					230					235		
gaa	tca	gac	caa	aaa	gat	gca	ctc	aac	aaa	atg	aaa	gat	gta	tat	gag	1132	
Glu	Ser	Asp	Gln	Lys	Asp	Ala	Leu	Asn	Lys	Met	Lys	Asp	Val	Tyr	Glu		
				240					245					250			
aag	aat	cca	caa	atg	ggg	gat	cca	ggg	agt	ttg	cag	cct	aaa	tta	gca	1180	
Lys	Asn	Pro	Gln	Met	Gly	Asp	Pro	Gly	Ser	Leu	Gln	Pro	Lys	Leu	Ala		
			255					260						265			
gag	acc	atg	aat	aac	att	gac	cgc	cta	cga	atg	gaa	atc	cat	aag	aat	1228	
Glu	Thr	Met	Asn	Asn	Ile	Asp	Arg	Leu	Arg	Met	Glu	Ile	His	Lys	Asn		
			270				275						280				
gag	gct	tgg	ctc	tct	gaa	gtc	gaa	ggc	aaa	aca	ggt	ggg	aga	gga	gac	1276	
Glu	Ala	Trp	Leu	Ser	Glu	Val	Glu	Gly	Lys	Thr	Gly	Gly	Arg	Gly	Asp		
	285					290					295						
aga	aga	cat	agc	agt	gac	ata	aat	cat	ctt	gta	aca	cag	gga	cga	gaa	1324	
Arg	Arg	His	Ser	Ser	Asp	Ile	Asn	His	Leu	Val	Thr	Gln	Gly	Arg	Glu		
300					305					310					315		
agt	cct	gag	gga	agt	tac	act	gat	gat	gca	aac	cag	gaa	gtc	cgt	ggg	1372	
Ser	Pro	Glu	Gly	Ser	Tyr	Thr	Asp	Asp	Ala	Asn	Gln	Glu	Val	Arg	Gly		
				320					325					330			
cca	ccc	cag	cag	cat	ggt	cac	cac	aat	gag	ttt	gat	gat	gaa	ttt	gag	1420	
Pro	Pro	Gln	Gln	His	Gly	His	His	Asn	Glu	Phe	Asp	Asp	Glu	Phe	Glu		
			335					340					345				
gat	gat	gat	ccc	ttg	cct	gct	att	gga	cac	tgc	aaa	gct	atc	tac	cct	1468	
Asp	Asp	Asp	Pro	Leu	Pro	Ala	Ile	Gly	His	Cys	Lys	Ala	Ile	Tyr	Pro		
			350				355					360					
ttt	gat	gga	cat	aat	gaa	ggt	act	cta	gca	atg	aaa	gaa	ggt	gaa	gtt	1516	
Phe	Asp	Gly	His	Asn	Glu	Gly	Thr	Leu	Ala	Met	Lys	Glu	Gly	Glu	Val		
	365					370				375							
ctc	tac	att	ata	gag	gag	gac	aaa	ggt	gac	gga	tgg	aca	aga	gct	cgg	1564	
Leu	Tyr	Ile	Ile	Glu	Glu	Asp	Lys	Gly	Asp	Gly	Trp	Thr	Arg	Ala	Arg		
380					385					390					395		
aga	cag	aac	ggt	gaa	gaa	ggc	tac	gtt	ccc	acg	tca	tac	ata	gat	gta	1612	
Arg	Gln	Asn	Gly	Glu	Glu	Gly	Tyr	Val	Pro	Thr	Ser	Tyr	Ile	Asp	Val		
			400						405					410			
act	cta	gag	aaa	aac	agt	aaa	ggt	gca	gta	act	tat	atc	taa	actaacc	1661		
Thr	Leu	Glu	Lys	Asn	Ser	Lys	Gly	Ala	Val	Thr	Tyr	Ile	*				
			415					420					425				
aggcaccttt	gtgccatgtg	tgacatagga	agagtaacat	aaaatgaaaa	cacattcaac	1721											
agggttgaaaa	aaaaaaaaa					1739											

<210> 875

<211> 1212

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (333) .. (689)

<400> 875

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tcttaaacac gtggcatgga agaccagaag agaagtggaa tcctcagacc tcaagctttt      180
tgcaagtgtt ggtgtctgtc cagtccttta tattagtagc tgagccttat tttaatgaac      240
cgggatatga acggtctaga ggcactccca gtggcacaca gagttctcga gaatatgatg      300
gaaacattcg acaagcaaca gttaagtggg ca  atg cta gaa caa atc aga aac      353
                               Met Leu Glu Gln Ile Arg Asn
                               1                               5

cct tca cca tgt ttt aaa gag gta ata cac aaa cat ttt tac ttg aaa      401
Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu Lys
          10                      15                      20

aga gtt gag ata atg gcc caa tgt gag gag tgg att gcg gat atc cag      449
Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile Gln
          25                      30                      35

cag tac agc agt gat aag cgg gta ggc agg act atg tct cac cat gca      497
Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His Ala
          40                      45                      50                      55

gca gct ctc aag cgt cac act gct cag ctc cgc gaa gag ttg ctg aaa      545
Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu Lys
          60                      65                      70

ctt ccc tgc cct gaa ggc ttg gat cct gac act gac gat gcc cca gag      593
Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Asp Ala Pro Glu
          75                      80                      85

gtg tgc aga gcc aca aca ggt gct gag gag act cta atg cat gat cag      641
Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp Gln
          90                      95                      100

gtt aaa ccc agc agc agc aaa gaa ctc ccc agt gac ttc cag tta tga      689
Val Lys Pro Ser Ser Ser Lys Glu Leu Pro Ser Asp Phe Gln Leu  *
          105                      110                      115

gctgcattga tgtggacttc atagacacaa aggcttcgaa gcacaagcca aatatgtcaa      749
tatttgatat taagaaacta attatgtaat aggtaatgaa actgaaacta tactatgccc      809
ttaaggagat ccagtttaat tcaaggtgat cttttattta cctgtacagg agtgtaaact      869
tttttgtgct tttatttttc aattgtgaga accactgatt ggtatgttca acaaatttgt      929
gtatacaaag aaatggataa atcactgcta tataagggaa actaccttag gaaagaatgt      989
ttactgaatg tttattttat tttttttttt ttttactata gagtgagggg ttgttaacaa     1049
agaatatata ttggtcattc ttacaactac tatttaaagt cagcaacttt tcaactgaatt     1109

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Gln Val His	Lys Gln Thr Met Val	Gln Leu Ala Leu Arg Val	Ala Asp	
	120	125	130	
gaa atg gat gtt aac att ggt cat gag gtt ggc tac gtg atc cct ttc				908
Glu Met Asp Val Asn Ile Gly His Glu Val Gly Tyr Val Ile Pro Phe				
	135	140	145	
gag aac tgc tgt acc aac gaa aca atc ctg agg tat tgt act gat gat				956
Glu Asn Cys Cys Thr Asn Glu Thr Ile Leu Arg Tyr Cys Thr Asp Asp				
	150	155	160	
atg ctg caa aga gaa atg atg tcc aat cct ttt ttg ggt agc tat ggg				1004
Met Leu Gln Arg Glu Met Met Ser Asn Pro Phe Leu Gly Ser Tyr Gly				
	165	170	175	180
gtc atc atc tta gat gat att cat gaa aga agc att gca acc gat gtg				1052
Val Ile Ile Leu Asp Asp Ile His Glu Arg Ser Ile Ala Thr Asp Val				
	185	190	195	
tta ctt gga ctt ctt aaa gat gtt tta cta gca aga cca gaa ctg aag				1100
Leu Leu Gly Leu Leu Lys Asp Val Leu Leu Ala Arg Pro Glu Leu Lys				
	200	205	210	
ctc ata att aac tcc tca cct cac ctg atc agc aaa ctc aat tct tat				1148
Leu Ile Ile Asn Ser Ser Pro His Leu Ile Ser Lys Leu Asn Ser Tyr				
	215	220	225	
tat gga aac gtg cct gtc ata gaa gtg aaa aat aaa cac cct gtg gag				1196
Tyr Gly Asn Val Pro Val Ile Glu Val Lys Asn Lys His Pro Val Glu				
	230	235	240	
gtt gtg tac ctt agt gag gct caa aag gat tct ttt gag tct att tta				1244
Val Val Tyr Leu Ser Glu Ala Gln Lys Asp Ser Phe Glu Ser Ile Leu				
	245	250	255	260
cgc ctt atc ttt gaa att cac cac tcg ggt gag aaa ggt gac att gta				1292
Arg Leu Ile Phe Glu Ile His His Ser Gly Glu Lys Gly Asp Ile Val				
	265	270	275	
gtc ttt ctg gcc tgt gaa caa gat att gag aaa gtc tgt gaa act gtc				1340
Val Phe Leu Ala Cys Glu Gln Asp Ile Glu Lys Val Cys Glu Thr Val				
	280	285	290	
tat caa gga tct aac cta aac cca gat ctt gga gaa ctg gtg gtt gtt				1388
Tyr Gln Gly Ser Asn Leu Asn Pro Asp Leu Gly Glu Leu Val Val Val				
	295	300	305	
cct ttg tat cca aaa gag aaa tgt tca ttg ttc aag cca ctc gat gaa				1436
Pro Leu Tyr Pro Lys Glu Lys Cys Ser Leu Phe Lys Pro Leu Asp Glu				
	310	315	320	
aca gaa aaa aga tgc caa gtt tat caa aga aga gtg gtg tta act act				1484
Thr Glu Lys Arg Cys Gln Val Tyr Gln Arg Arg Val Val Leu Thr Thr				
	325	330	335	340
agc tct gga gag ttt ttg atc tgg agc aac tca gtc aga ttt gtt atc				1532
Ser Ser Gly Glu Phe Leu Ile Trp Ser Asn Ser Val Arg Phe Val Ile				
	345	350	355	
gat gtg ggt gtg gaa aga aga aag gtg tac aac ccg aga ata aga gca				1580
Asp Val Gly Val Glu Arg Arg Lys Val Tyr Asn Pro Arg Ile Arg Ala				
	360	365	370	
aac tcg ctc gtc atg cag ccc atc agc cag agc cag gca gag ata cgc				1628

Asn	Ser	Leu	Val	Met	Gln	Pro	Ile	Ser	Gln	Ser	Gln	Ala	Glu	Ile	Arg	
		375					380					385				
aag	cag	att	ctt	ggc	tca	tct	tct	tca	gga	aaa	ttt	ttc	tgc	ctg	tac	1676
Lys	Gln	Ile	Leu	Gly	Ser	Ser	Ser	Ser	Gly	Lys	Phe	Phe	Cys	Leu	Tyr	
		390					395				400					
act	gaa	gaa	ttt	gcc	tcc	aaa	gac	atg	acg	cca	ctg	aag	cca	gca	gaa	1724
Thr	Glu	Glu	Phe	Ala	Ser	Lys	Asp	Met	Thr	Pro	Leu	Lys	Pro	Ala	Glu	
405					410					415					420	
atg	cag	gaa	gcc	aac	cta	aca	agc	atg	gtg	ctt	ttt	atg	aag	agg	ata	1772
Met	Gln	Glu	Ala	Asn	Leu	Thr	Ser	Met	Val	Leu	Phe	Met	Lys	Arg	Ile	
				425					430					435		
gac	att	gcg	ggc	cta	ggc	cac	tgt	gac	ttc	atg	aac	aga	cca	gca	cca	1820
Asp	Ile	Ala	Gly	Leu	Gly	His	Cys	Asp	Phe	Met	Asn	Arg	Pro	Ala	Pro	
			440					445					450			
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cct	ctt	gat	cca	caa	ctc	tcg	aag	tct	atc	tta	gcg	tcc	tgt	gaa	ttt	1964
Pro	Leu	Asp	Pro	Gln	Leu	Ser	Lys	Ser	Ile	Leu	Ala	Ser	Cys	Glu	Phe	
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gac	tgt	gta	gat	gaa	gtg	cta	aca	atc	gca	gcc	atg	gta	aca	gct	cca	2012
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Asn	Cys	Phe	Ser	His	Val	Pro	His	Gly	Ala	Glu	Glu	Ala	Ala	Leu	Thr	
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Cys	Trp	Lys	Thr	Phe	Leu	His	Pro	Glu	Gly	Asp	His	Phe	Thr	Leu	Ile	
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Leu	Arg	Met	Ala	Asp	Val	Ile	Arg	Ala	Glu	Leu	Leu	Glu	Ile	Ile	Lys	
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Thr	Leu	Asn	Ile	Lys	Lys	Ala	Leu	Leu	Ser	Gly	Tyr	Phe	Met	Gln	Ile	
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tct ctc acc aac tgc ctg ggg ccc cgg aag ctc tta cac agt ggg aaa Ser Leu Thr Asn Cys Leu Gly Pro Arg Lys Leu Leu His Ser Gly Lys 1425 1430 1435 1440	4557
tta tac aag acc aag agc aac aag gaa ctg cac gga ttc ctc ttc aat Leu Tyr Lys Thr Lys Ser Asn Lys Glu Leu His Gly Phe Leu Phe Asn 1445 1450 1455	4605
gac ttc ctg ctt ctt acc tac atg gtc aag cag ttt gct gtt tcc tct Asp Phe Leu Leu Leu Thr Tyr Met Val Lys Gln Phe Ala Val Ser Ser 1460 1465 1470	4653
ggc tct gag aaa ctt ttc agc tcg aag tcc aat gct caa ttc aaa atg Gly Ser Glu Lys Leu Phe Ser Ser Lys Ser Asn Ala Gln Phe Lys Met 1475 1480 1485	4701
tat aaa acg ccc att ttc ctg aat gaa gtc ttg gtg aaa ctg ccc aca Tyr Lys Thr Pro Ile Phe Leu Asn Glu Val Leu Val Lys Leu Pro Thr 1490 1495 1500	4749
gac cct tcc agc gat gag cct gtc ttc cac att tcc cac att gat cgg Asp Pro Ser Ser Asp Glu Pro Val Phe His Ile Ser His Ile Asp Arg 1505 1510 1515 1520	4797
gtc tac acc ctc cga aca gac aac att aat gag agg acc acc tgg gtg Val Tyr Thr Leu Arg Thr Asp Asn Ile Asn Glu Arg Thr Thr Trp Val 1525 1530 1535	4845
cag aag atc aag gcg gcg tct gag cag tac atc gac acc gag aag aag Gln Lys Ile Lys Ala Ala Ser Glu Gln Tyr Ile Asp Thr Glu Lys Lys 1540 1545 1550	4893
aag cgt gag aaa gct tac caa gcc cgc tcc caa aag act tca ggc att Lys Arg Glu Lys Ala Tyr Gln Ala Arg Ser Gln Lys Thr Ser Gly Ile 1555 1560 1565	4941
ggg cgc ctg atg gtg cat gtc att gaa gct aca gaa tta aaa gcc tgc Gly Arg Leu Met Val His Val Ile Glu Ala Thr Glu Leu Lys Ala Cys 1570 1575 1580	4989
aaa cca aat gga aag agc aac cca tac tgt gaa atc agc atg ggc tcc Lys Pro Asn Gly Lys Ser Asn Pro Tyr Cys Glu Ile Ser Met Gly Ser 1585 1590 1595 1600	5037
cag agc tac acc acc agg acc atc cag gac aca ctc aat ccc aag tgg Gln Ser Tyr Thr Thr Arg Thr Ile Gln Asp Thr Leu Asn Pro Lys Trp 1605 1610 1615	5085
aat ttt aac tgc cag ttc ttt att aag gat ctc tac caa gac gtg ctg Asn Phe Asn Cys Gln Phe Phe Ile Lys Asp Leu Tyr Gln Asp Val Leu 1620 1625 1630	5133
tgt ctc acc ctg ttt gac aga gac cag ttt tca cca gat gat ttc ctg Cys Leu Thr Leu Phe Asp Arg Asp Gln Phe Ser Pro Asp Asp Phe Leu 1635 1640 1645	5181
ggc cgt act gaa att cca gtg gca aaa att cga aca gaa cag gaa agc Gly Arg Thr Glu Ile Pro Val Ala Lys Ile Arg Thr Glu Gln Glu Ser 1650 1655 1660	5229
aaa ggc cct atg acc cgc cga ctg ctg ctg cat gag gtc ccc acc ggg Lys Gly Pro Met Thr Arg Arg Leu Leu Leu His Glu Val Pro Thr Gly 1665 1670 1675 1680	5277

gag gtc tgg gtc cgt ttt gac ctg cag ctt ttt gag caa aaa act ctc 5325
 Glu Val Trp Val Arg Phe Asp Leu Gln Leu Phe Glu Gln Lys Thr Leu
 1685 1690 1695
 ctg tag gggttctaaa ggacagcacc agcgggacag cccacaaggc tggggctgga 5381
 Leu *
 gaatgagaga ctgcgctctc ttggggctga gggagcacca tgcagcttca cccctcacia 5441
 agccatgcac gctgggggct ctgttttctc gcacactaaa tagctagcaa tctatgcaaa 5501
 cacctttccc ataaagaaac caaaccccat agtacagtgc cttgtcctag tgttcacatg 5561
 ttcagctctg tttgtttaga tgccaagggt tccattttca gggctataaa aagtattact 5621
 tggaaatgag gcatcagacc accagatggt accgctcggt tgaatgtgtc caccgtggag 5681
 tgggttggtg acgctgtaac cattccacgc cagtgcctc tgctgggtca cagccactca 5741
 ggaggggaag ggtcaggatg agaggctgca gcctcgacac ttggcgcggc ctgatactga 5801
 aatagcgtct actcgtgcac tgaataaaaa cagaaacttg atcattttat tctgattag 5861
 attttatcac tctctgctaa gacaatatag tctggagtat aagtgggaaa gcttgattta 5921
 aatactgtga actctaataa tgtggaaaat atttttcaac ttaattttc tgaagtataa 5981
 attatttatg taaattcatt gtttttgcac atttcttagg acatgcatct ttaagcttta 6041
 tcattgccca tatgtacaga aagagaataa agacatatgt ttatggatgg aaaaaaaaaa 6101
 aa 6103

<210> 878
 <211> 1668
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (95)..(1432)

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 atttggccct cgaggccaag aattcggcac gagacactct tcagcgacca cgcaggcact 60
 ttcccgggtcc ccagtatacc ataattgaag aaaa atg atg gaa gag agt gga 112
 Met Met Glu Glu Ser Gly
 1 5
 ata gag aca aca cca cct ggg act cct cca cca aat cct gca ggg ctg 160
 Ile Glu Thr Thr Pro Pro Gly Thr Pro Pro Pro Asn Pro Ala Gly Leu
 10 15 20
 gct gct act gct atg tct tct acc cct gtt cca tta gcg gca acc agt 208
 Ala Ala Thr Ala Met Ser Ser Thr Pro Val Pro Leu Ala Ala Thr Ser
 25 30 35
 tct ttt tct tct cca aat gta tcc tcc atg gag tcc ttc cca cca ctc 256
 Ser Phe Ser Ser Pro Asn Val Ser Ser Met Glu Ser Phe Pro Pro Leu

40	45	50	
gca tac tct act cct cag ccg ccc ctt cct cct gtg agg cct tca gca Ala Tyr Ser Thr Pro Gln Pro Pro Leu Pro Pro Val Arg Pro Ser Ala 55 60 65 70			304
cca tta cct ttt gtg cct cct cct gca gtt cct tct gtc cca cca ctt Pro Leu Pro Phe Val Pro Pro Pro Ala Val Pro Ser Val Pro Pro Leu 75 80 85			352
gtt act tct atg cca cct cct gtt tct cca tca act gct gct gcc ttc Val Thr Ser Met Pro Pro Pro Val Ser Pro Ser Thr Ala Ala Ala Phe 90 95 100			400
ggt aat cct cct gta tct cac ttc cca cct tca act tct gcc cca aac Gly Asn Pro Pro Val Ser His Phe Pro Pro Ser Thr Ser Ala Pro Asn 105 110 115			448
act ctt tta cct gca ccc cct tcg ggt cct cct ata tca gga ttt tct Thr Leu Leu Pro Ala Pro Pro Ser Gly Pro Pro Ile Ser Gly Phe Ser 120 125 130			496
gtt ggt tca act tat gac att aca agg gga cat gct ggg aga gct ccc Val Gly Ser Thr Tyr Asp Ile Thr Arg Gly His Ala Gly Arg Ala Pro 135 140 145 150			544
cag aca ccc ctg atg cca tca ttt tct gca cct tca gga aca ggt ctt Gln Thr Pro Leu Met Pro Ser Phe Ser Ala Pro Ser Gly Thr Gly Leu 155 160 165			592
ttg cca act cct att act cag caa gcc agt ttg aca tct ctg gca cag Leu Pro Thr Pro Ile Thr Gln Gln Ala Ser Leu Thr Ser Leu Ala Gln 170 175 180			640
gga act gga acc aca tca gcc att act ttc cca gag gag caa gaa gac Gly Thr Gly Thr Thr Ser Ala Ile Thr Phe Pro Glu Glu Gln Glu Asp 185 190 195			688
cct aga att act aga ggt cag gat gaa gca tct gct ggt gga atc tgg Pro Arg Ile Thr Arg Gly Gln Asp Glu Ala Ser Ala Gly Gly Ile Trp 200 205 210			736
ggt ttt att aag ggt gtg gct ggg aat cct atg gtg aag tct gtg ctt Gly Phe Ile Lys Gly Val Ala Gly Asn Pro Met Val Lys Ser Val Leu 215 220 225 230			784
gat aag aca aaa cat tca gta gaa agc atg att aca acg ctg gac cct Asp Lys Thr Lys His Ser Val Glu Ser Met Ile Thr Thr Leu Asp Pro 235 240 245			832
ggc atg gct ccc tat atc aaa tct gga ggt gaa ctg gat att gta gtg Gly Met Ala Pro Tyr Ile Lys Ser Gly Gly Glu Leu Asp Ile Val Val 250 255 260			880
acc tca aat aaa gaa gta aaa gtt gct gct gtc cga gat gcc ttc cag Thr Ser Asn Lys Glu Val Lys Val Ala Ala Val Arg Asp Ala Phe Gln 265 270 275			928
gag gtc ttt ggc tta gct gtg gtt gta ggg gaa gct gga cag tcc aat Glu Val Phe Gly Leu Ala Val Val Val Gly Glu Ala Gly Gln Ser Asn 280 285 290			976
att gcc cca caa cca gtg ggc tat gca gct gga tta aaa ggt gct cag Ile Ala Pro Gln Pro Val Gly Tyr Ala Ala Gly Leu Lys Gly Ala Gln			1024

295	300	305	310	
gaa cgg ata gat agc ttg cgt cga act ggg gtg atc cat gaa aaa cag				1072
Glu Arg Ile Asp Ser Leu Arg Arg Thr Gly Val Ile His Glu Lys Gln				
	315	320	325	
aca gct gtg tca gta gaa aac ttc att gca gaa ttg ctg cct gac aaa				1120
Thr Ala Val Ser Val Glu Asn Phe Ile Ala Glu Leu Leu Pro Asp Lys				
	330	335	340	
tgg ttt gac att ggt tgt ttg gtg gtt gaa gat cct gtc cat ggc att				1168
Trp Phe Asp Ile Gly Cys Leu Val Val Glu Asp Pro Val His Gly Ile				
	345	350	355	
cat cta gaa aca ttt aca caa gcc aca cca gtg cct ttg gaa ttt gta				1216
His Leu Glu Thr Phe Thr Gln Ala Thr Pro Val Pro Leu Glu Phe Val				
	360	365	370	
cag cag gct caa agt cta act ccc cag gac tat aat ctg agg tgg tca				1264
Gln Gln Ala Gln Ser Leu Thr Pro Gln Asp Tyr Asn Leu Arg Trp Ser				
	375	380	385	390
ggc ctt ttg gtg aca gtg ggt gaa gtc ctg gaa aag agt tta ctg aat				1312
Gly Leu Leu Val Thr Val Gly Glu Val Leu Glu Lys Ser Leu Leu Asn				
	395	400	405	
gtc agc cgg act gat tgg cac atg gca ttt act ggg atg tcc cgt cgg				1360
Val Ser Arg Thr Asp Trp His Met Ala Phe Thr Gly Met Ser Arg Arg				
	410	415	420	
cag atg atc tac agt gca gcc aga gcg ata gca ggc atg tat aaa cag				1408
Gln Met Ile Tyr Ser Ala Ala Arg Ala Ile Ala Gly Met Tyr Lys Gln				
	425	430	435	
cgc ctg cca ccc agg aca gtg tga gaggagacct acctgggaga ctgagacttt				1462
Arg Leu Pro Pro Arg Thr Val *				
	440	445		
ccccacttt tagcttgatg ttaaagaagt gggtgtacct tcctaaatcg aatagtctaa				1522
atgaatccag tagtttttat cattttcctg tagcctgcaa tttttctttc tctagaaagg				1582
catcatgtca ttccaggaga caaaaagaaa caaatccttt ttatagtcac accatttcac				1642
ctatcatagt actcaaaaaa aaaaaa				1668

<210> 879
 <211> 1350
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1056)

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atg gca ctc ccc ttt caa aaa gag ctg gag aaa tac aag aac att gat	48
Met Ala Leu Pro Phe Gln Lys Glu Leu Glu Lys Tyr Lys Asn Ile Asp	
1 5 10 15	
gaa gat gag ctt ctt ggc aaa ctc tca gaa gag gaa ctg aaa cag ttg	96

Glu	Asp	Glu	Leu	Leu	Gly	Lys	Leu	Ser	Glu	Glu	Glu	Leu	Lys	Gln	Leu	
			20					25					30			
gaa	aat	gtt	cta	gat	gac	cta	gat	cct	gag	agt	gcc	atg	ctg	cca	gct	144
Glu	Asn	Val	Leu	Asp	Asp	Leu	Asp	Pro	Glu	Ser	Ala	Met	Leu	Pro	Ala	
		35					40					45				
gga	ttt	cga	cag	aaa	gac	cag	aca	cag	aag	gca	gcc	acc	ggc	ccc	ttt	192
Gly	Phe	Arg	Gln	Lys	Asp	Gln	Thr	Gln	Lys	Ala	Ala	Thr	Gly	Pro	Phe	
	50					55				60						
gac	cgc	gag	cac	ctc	ctc	atg	tac	ctg	gag	aag	gag	gct	ttg	gaa	cag	240
Asp	Arg	Glu	His	Leu	Leu	Met	Tyr	Leu	Glu	Lys	Glu	Ala	Leu	Glu	Gln	
	65				70				75					80		
aaa	gac	aga	gag	gac	ttt	gtg	ccc	ttc	act	gga	gaa	aag	aaa	ggg	aga	288
Lys	Asp	Arg	Glu	Asp	Phe	Val	Pro	Phe	Thr	Gly	Glu	Lys	Lys	Gly	Arg	
				85				90						95		
gtc	ttt	atc	cct	aaa	gaa	aag	cct	ata	gaa	act	cgt	aaa	gaa	gaa	aaa	336
Val	Phe	Ile	Pro	Lys	Glu	Lys	Pro	Ile	Glu	Thr	Arg	Lys	Glu	Glu	Lys	
			100					105					110			
gtg	acc	ctt	gac	cca	gaa	ctg	gaa	gaa	gct	ttg	gcc	agt	gcc	tct	gac	384
Val	Thr	Leu	Asp	Pro	Glu	Leu	Glu	Glu	Ala	Leu	Ala	Ser	Ala	Ser	Asp	
		115					120					125				
acc	gaa	ctc	tat	gat	ctt	gca	gct	gtc	ctt	gga	gta	cac	aat	ttg	ctc	432
Thr	Glu	Leu	Tyr	Asp	Leu	Ala	Ala	Val	Leu	Gly	Val	His	Asn	Leu	Leu	
	130					135					140					
aac	aat	cca	aag	ttc	gat	gaa	gaa	aca	gcc	aac	aat	aaa	ggt	ggc	aaa	480
Asn	Asn	Pro	Lys	Phe	Asp	Glu	Glu	Thr	Ala	Asn	Asn	Lys	Gly	Gly	Lys	
145					150				155						160	
gga	cct	gtc	aga	aat	gtt	gtc	aaa	ggt	gaa	aaa	gta	aag	cca	gta	ttt	528
Gly	Pro	Val	Arg	Asn	Val	Val	Lys	Gly	Glu	Lys	Val	Lys	Pro	Val	Phe	
				165				170						175		
gag	gaa	cca	cca	aat	ccc	aca	aat	gtg	gaa	ata	agc	ctg	cag	cag	atg	576
Glu	Glu	Pro	Pro	Asn	Pro	Thr	Asn	Val	Glu	Ile	Ser	Leu	Gln	Gln	Met	
			180					185					190			
aaa	gcc	aat	gat	cct	agc	ttg	caa	gaa	gtc	aac	ctc	aac	aac	att	aag	624
Lys	Ala	Asn	Asp	Pro	Ser	Leu	Gln	Glu	Val	Asn	Leu	Asn	Asn	Ile	Lys	
		195					200					205				
aac	att	cca	att	cca	acc	ctg	agg	gaa	ttt	gca	aag	gct	ctg	gag	acc	672
Asn	Ile	Pro	Ile	Pro	Thr	Leu	Arg	Glu	Phe	Ala	Lys	Ala	Leu	Glu	Thr	
	210					215					220					
aac	act	cac	gtg	aag	aag	ttc	agc	ctg	gcc	gca	act	cgc	agc	aat	gac	720
Asn	Thr	His	Val	Lys	Lys	Phe	Ser	Leu	Ala	Ala	Thr	Arg	Ser	Asn	Asp	
225					230				235					240		
cct	gtg	gcc	att	gct	ttt	gca	gac	atg	ctg	aaa	gta	aac	aag	acc	ttg	768
Pro	Val	Ala	Ile	Ala	Phe	Ala	Asp	Met	Leu	Lys	Val	Asn	Lys	Thr	Leu	
				245					250					255		
aca	agt	cta	aac	ata	gaa	tcc	aat	ttt	atc	act	gga	act	ggg	atc	ctg	816
Thr	Ser	Leu	Asn	Ile	Glu	Ser	Asn	Phe	Ile	Thr	Gly	Thr	Gly	Ile	Leu	
			260					265					270			
gcc	ctg	gta	gag	gca	ctg	aaa	gaa	aat	gac	acc	ttg	aca	gaa	atc	aag	864

Ala Leu Val Glu Ala Leu Lys Glu Asn Asp Thr Leu Thr Glu Ile Lys	
275 280 285	
att gac aac cag agg cag cag ttg gga aca gct gta gag atg gaa att	912
Ile Asp Asn Gln Arg Gln Gln Leu Gly Thr Ala Val Glu Met Glu Ile	
290 295 300	
gcc cag atg ctg gag gag aat tca agg atc ctc aag ttt gga tac cag	960
Ala Gln Met Leu Glu Glu Asn Ser Arg Ile Leu Lys Phe Gly Tyr Gln	
305 310 315 320	
ttt acc aag caa ggg cca cga aca agg gtg gca gct gcc atc aca aag	1008
Phe Thr Lys Gln Gly Pro Arg Thr Arg Val Ala Ala Ala Ile Thr Lys	
325 330 335	
aat aat gac ctg gtt cgt aag aag aga gtt gaa gca gac cga agg taa	1056
Asn Asn Asp Leu Val Arg Lys Lys Arg Val Glu Ala Asp Arg Arg *	
340 345 350	
acttccttga ggagaagtga agtttcactg tggatatggcc attgaaaaac aaaaactctt	1116
cttcttcccc atcaggacca ttttatcaaa gttcgttcat ttcogttaac cacataacta	1176
ataatttaat tgttattctt ttttagcact acttatattat cttggatttt gtaatatatg	1236
caattgtttt atttgcctcat gggcacttct ggcaacttga caaatggacc gatgcagatt	1296
ttagagagtg acgacatgga aaatgaattt aaccactttc ttaaaaaaaaa aaaa	1350

<210> 880
 <211> 855
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (157)..(771)

<400> 880	
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gagcggaagg gccaaaggac gtcttctcca cgccgctccg actccagggg agccgtggcc	120
tcctctccgc cctagcgcgtg agaaccgtgg gtaccg atg gat gtg gcc gag agc	174
Met Asp Val Ala Glu Ser	
1 5	
cct gaa cgg gat cct cac tct cca gag gat gaa gag cag cca cag gga	222
Pro Glu Arg Asp Pro His Ser Pro Glu Asp Glu Glu Gln Pro Gln Gly	
10 15 20	
ctc tcg gac gat gac att ctg agg gac agc ggg tcc gat cag gat ttg	270
Leu Ser Asp Asp Asp Ile Leu Arg Asp Ser Gly Ser Asp Gln Asp Leu	
25 30 35	
gac ggg gcg ggg gtg agg gct tct gat ctg gag gat gag gaa agt gca	318
Asp Gly Ala Gly Val Arg Ala Ser Asp Leu Glu Asp Glu Glu Ser Ala	
40 45 50	
gcc agg ggg ccg agc cag gag gag gaa gat aat cac tcc gac gag gag	366
Ala Arg Gly Pro Ser Gln Glu Glu Glu Asp Asn His Ser Asp Glu Glu	

55	60	65	70	
gac cgg gca agt gag cct aaa tcc caa gac cag gac tca gag gtg aat				414
Asp Arg Ala Ser Glu Pro Lys Ser Gln Asp Gln Asp Ser Glu Val Asn				
	75	80	85	
gag ctg agc cgg ggc ccg acc agc tcc ccc tgc gag gag gag ggg gac				462
Glu Leu Ser Arg Gly Pro Thr Ser Ser Pro Cys Glu Glu Glu Gly Asp				
	90	95	100	
gaa ggg gag gaa gac cgg aca agc gac ctt agg gat gag gcc tcc tca				510
Glu Gly Glu Glu Asp Arg Thr Ser Asp Leu Arg Asp Glu Ala Ser Ser				
	105	110	115	
gtc acc agg gag ctg gat gag cat gag cta gac tac gat gag gag gtt				558
Val Thr Arg Glu Leu Asp Glu His Glu Leu Asp Tyr Asp Glu Glu Val				
	120	125	130	
cct gag gag cca gct ccc gcc gtc cag gag gac gag gct gag aaa gcg				606
Pro Glu Glu Pro Ala Pro Ala Val Gln Glu Asp Glu Ala Glu Lys Ala				
	135	140	145	150
ggg gct gag gat gat gag gag aag ggc gaa ggc act ccc agg gag gag				654
Gly Ala Glu Asp Asp Glu Glu Lys Gly Glu Gly Thr Pro Arg Glu Glu				
	155	160	165	
ggg aag gct ggt gtt cag agt gtg gga gaa aag gaa tcc ctg gag gct				702
Gly Lys Ala Gly Val Gln Ser Val Gly Glu Lys Glu Ser Leu Glu Ala				
	170	175	180	
gcc aag gag aaa aag aaa gag gac gat gat gga gaa atc gaa ttt agt				750
Ala Lys Glu Lys Lys Lys Glu Asp Asp Asp Gly Glu Ile Glu Phe Ser				
	185	190	195	
agt agt agg cgg ccg ctc tag ag gatccaagct tacgtacgcg tgcattgcgac				803
Ser Ser Arg Arg Pro Leu *				
	200	205		
gtcatagctc ttctatagtg tcacctaaat gcgattcact taccgctaca tc				855

<210> 881
 <211> 1973
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (255) .. (1784)

cctgtattac gtagacccaa gctggctagc gtttaaactt aagcttggtta ccgagctcgg	60
atccactagt ccagtgtggt ggaattcgat ggaggacgca gaggcacgct gttgccatgg	120
cagtgtggtc ctggctgccg cggaggcagg tgccgggggtc tcctttgcct caatgtgaag	180
agcttaaaaa gaggaggaga ggagaactcc cccggccatc tctgtgatcc cagccgccgc	240
attttacaca gaaa atg aat gaa aat aaa gat act gat tca aag aaa agt	290
Met Asn Glu Asn Lys Asp Thr Asp Ser Lys Lys Ser	
1 5 10	

gaa gaa tac gaa gat gac ttt gaa aag gac ctg gag tgg tta att aat	338
Glu Glu Tyr Glu Asp Asp Phe Glu Lys Asp Leu Glu Trp Leu Ile Asn	
15 20 25	
gaa aat gaa aaa agt gat gcc agc ata ata gag atg gct tgt gag aag	386
Glu Asn Glu Lys Ser Asp Ala Ser Ile Ile Glu Met Ala Cys Glu Lys	
30 35 40	
gaa gag aat att aac caa gac tta aaa gag aat gag aca gta atg gag	434
Glu Glu Asn Ile Asn Gln Asp Leu Lys Glu Asn Glu Thr Val Met Glu	
45 50 55 60	
cac acc aaa cgg cat tct gat cct gac aaa tct ttg cag gat gag gtc	482
His Thr Lys Arg His Ser Asp Pro Asp Lys Ser Leu Gln Asp Glu Val	
65 70 75	
tca cca aga aga aat gac atc att tct gta cca ggt att caa cct ttg	530
Ser Pro Arg Arg Asn Asp Ile Ile Ser Val Pro Gly Ile Gln Pro Leu	
80 85 90	
gat ccc ata tca gat tca gat agt gaa aac tct ttc cag gaa tcc aaa	578
Asp Pro Ile Ser Asp Ser Asp Ser Glu Asn Ser Phe Gln Glu Ser Lys	
95 100 105	
cta gaa agc cag aaa gac ttg gag gag gaa gag gat gag gaa gta agg	626
Leu Glu Ser Gln Lys Asp Leu Glu Glu Glu Glu Asp Glu Glu Val Arg	
110 115 120	
aga tat att atg gag aaa att gta caa gct aac aag ctt cta cag aat	674
Arg Tyr Ile Met Glu Lys Ile Val Gln Ala Asn Lys Leu Leu Gln Asn	
125 130 135 140	
caa gaa ccg gtg aat gat aaa agg gag cga aaa ctt aag ttc aag gac	722
Gln Glu Pro Val Asn Asp Lys Arg Glu Arg Lys Leu Lys Phe Lys Asp	
145 150 155	
cag tta gtt gat ttg gaa gtt cct cca cta gaa gac act act act ttt	770
Gln Leu Val Asp Leu Glu Val Pro Pro Leu Glu Asp Thr Thr Thr Phe	
160 165 170	
aaa aat tat ttt gaa aac gaa agg aat atg ttt ggg aaa ctg tca caa	818
Lys Asn Tyr Phe Glu Asn Glu Arg Asn Met Phe Gly Lys Leu Ser Gln	
175 180 185	
tta tgt att tcc aat gat ttt gga caa gaa gat gtg ctc ctg tca ctt	866
Leu Cys Ile Ser Asn Asp Phe Gly Gln Glu Asp Val Leu Leu Ser Leu	
190 195 200	
act aat gga agc tgt gaa gaa aac aag gat agg aca ata ctg gta gag	914
Thr Asn Gly Ser Cys Glu Glu Asn Lys Asp Arg Thr Ile Leu Val Glu	
205 210 215 220	
aga gat gga aaa ttt gaa ctt ctg aat tta caa gac att gcc agt cag	962
Arg Asp Gly Lys Phe Glu Leu Leu Asn Leu Gln Asp Ile Ala Ser Gln	
225 230 235	
ggg ttt ttg cct ccc att aat aat gca aat agt aca gaa aat gac cct	1010
Gly Phe Leu Pro Pro Ile Asn Asn Ala Asn Ser Thr Glu Asn Asp Pro	
240 245 250	
cag cag ttg tta ccc aga tct tcc aac tcc tct gtc agt ggc acc aag	1058
Gln Gln Leu Leu Pro Arg Ser Ser Asn Ser Ser Val Ser Gly Thr Lys	
255 260 265	

aaa gaa gat tct aca gca aag att cat gct gtc act cac tca tca aca	1106
Lys Glu Asp Ser Thr Ala Lys Ile His Ala Val Thr His Ser Ser Thr	
270 275 280	
gga gag ccg ctg gct tat atc gct cag cca cca ctc aac cgc aag act	1154
Gly Glu Pro Leu Ala Tyr Ile Ala Gln Pro Pro Leu Asn Arg Lys Thr	
285 290 295 300	
tgt cca agc tct gct gtc aac tca gat cga agt aaa ggg aat ggg aaa	1202
Cys Pro Ser Ser Ala Val Asn Ser Asp Arg Ser Lys Gly Asn Gly Lys	
305 310 315	
tct aat cac agg aca cag tct gca cat atc tca cca gtg act tca aca	1250
Ser Asn His Arg Thr Gln Ser Ala His Ile Ser Pro Val Thr Ser Thr	
320 325 330	
tac tgt ctt tcc cct cga cag aaa gaa cta caa aaa caa cta gaa gaa	1298
Tyr Cys Leu Ser Pro Arg Gln Lys Glu Leu Gln Lys Gln Leu Glu Glu	
335 340 345	
aag aga gaa aaa ctg aaa aga gag gaa gag cga cga aaa ata gaa gaa	1346
Lys Arg Glu Lys Leu Lys Arg Glu Glu Glu Arg Arg Lys Ile Glu Glu	
350 355 360	
gag aaa gaa aaa aag aga gag aat gac ata gta ttt aaa gcg tgg ttg	1394
Glu Lys Glu Lys Lys Arg Glu Asn Asp Ile Val Phe Lys Ala Trp Leu	
365 370 375 380	
caa aag aaa aga gag cag gtc tta gaa atg agg aga att cag cga gca	1442
Gln Lys Lys Arg Glu Gln Val Leu Glu Met Arg Arg Ile Gln Arg Ala	
385 390 395	
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Lys Glu Ile Glu Asp Met Asn Ser Arg Gln Glu Asn Arg Asp Pro Gln	
400 405 410	
caa gct ttt cga tta tgg ctt aaa aaa aag cac gaa gag cag atg aaa	1538
Gln Ala Phe Arg Leu Trp Leu Lys Lys Lys His Glu Glu Gln Met Lys	
415 420 425	
gaa aga cag aca gaa gaa cta aga aag caa gag gaa tgt tta ttc ttc	1586
Glu Arg Gln Thr Glu Glu Leu Arg Lys Gln Glu Glu Cys Leu Phe Phe	
430 435 440	
ctt aaa gga aca gaa ggc cgg gaa agg gcc ttt aaa caa tgg tta aga	1634
Leu Lys Gly Thr Glu Gly Arg Glu Arg Ala Phe Lys Gln Trp Leu Arg	
445 450 455 460	
agg aaa cgg atg gaa aaa atg gca gag caa caa gct gtc aga gag aga	1682
Arg Lys Arg Met Glu Lys Met Ala Glu Gln Gln Ala Val Arg Glu Arg	
465 470 475	
act aga cag ctc cga cta gaa gct aag cgt tct aaa cag tta cag cac	1730
Thr Arg Gln Leu Arg Leu Glu Ala Lys Arg Ser Lys Gln Leu Gln His	
480 485 490	
cac cta tat atg tca gaa gcc aaa cct ttt cgt ttt act gat cat tat	1778
His Leu Tyr Met Ser Glu Ala Lys Pro Phe Arg Phe Thr Asp His Tyr	
495 500 505	
aac tga aagtttctat taaatatctc agtgggcagc tgctatcaaa attttggata	1834
Asn *	
510	

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 Met
 1
 gct gtg gct agc gat ttc tac ctg cgc tac tac gta ggg cac aag ggc 166
 Ala Val Ala Ser Asp Phe Tyr Leu Arg Tyr Tyr Val Gly His Lys Gly
 5 10 15
 aag ttt ggg cac gag ttt ctg gag ttc gaa ttt cgg ccg gac ggt gag 214
 Lys Phe Gly His Glu Phe Leu Glu Phe Glu Phe Arg Pro Asp Gly Glu
 20 25 30
 aag agg ccc acg gca cgc ggt gct ggg aaa ggg gag cga gac cga gag 262
 Lys Arg Pro Thr Ala Arg Gly Ala Gly Lys Gly Glu Arg Asp Arg Glu
 35 40 45
 gcc ggg tgg tgt gga ggg tac agg cgg cgg agg cca ctg ctt ccc tcg 310
 Ala Gly Trp Cys Gly Gly Tyr Arg Arg Arg Arg Pro Leu Leu Pro Ser
 50 55 60 65
 aag gaa ata gga gct taa gaatag aggaggcata agttgggttt ataaatgaaa 364
 Lys Glu Ile Gly Ala *
 70
 gagaattaat tgcaataaat taaagctaact cctgtcacaa actgaaaagt tgaacctaca 424
 gtaatcagaa ttctgtaaca gtgcaccaga agggactcta gatcgtcgcc ctgattgaaa 484
 atgctagcac ttttttgaaa accg 508

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g atg cag cct tta acg aag gac gca ggc atg agc ctg tcc tct gtg 166
 Met Gln Pro Leu Thr Lys Asp Ala Gly Met Ser Leu Ser Ser Val
 1 5 10 15
 acg ctg gcc agc gcc cta cag gtc agg ggt gaa gct ctg tct gag gag 214
 Thr Leu Ala Ser Ala Leu Gln Val Arg Gly Glu Ala Leu Ser Glu Glu
 20 25 30
 gaa atc tgg tcc ctc ctg ttc ctg gcc gct gag cag ctc ctg gaa gac 262
 Glu Ile Trp Ser Leu Leu Phe Leu Ala Ala Glu Gln Leu Leu Glu Asp
 35 40 45
 ctc cgc aac gat tcc tcg gac tat gtg gtt tgc ccc tgg tca gcc ctg 310
 Leu Arg Asn Asp Ser Ser Asp Tyr Val Val Cys Pro Trp Ser Ala Leu
 50 55 60
 ctt tct gca gct gga agc ctt tct ttc caa ggc cgt gtt tct cat ata 358
 Leu Ser Ala Ala Gly Ser Leu Ser Phe Gln Gly Arg Val Ser His Ile
 65 70 75
 gag gct gct cct ttc aag gcc cct gaa ctg cta cag gga cag agt gag 406
 Glu Ala Ala Pro Phe Lys Ala Pro Glu Leu Leu Gln Gly Gln Ser Glu
 80 85 90 95
 gat gag cag cct gat gca tct cag atg cat gtc tat tct tta gga atg 454
 Asp Glu Gln Pro Asp Ala Ser Gln Met His Val Tyr Ser Leu Gly Met
 100 105 110
 acc ctc tac tgg tca gca ggg ttt cat gtt ccg cca cat cag ccc ctg 502
 Thr Leu Tyr Trp Ser Ala Gly Phe His Val Pro Pro His Gln Pro Leu
 115 120 125
 cag ctc tgc gag ccc ctg cac tcc atc ctg ctg acc atg tgt gaa gac 550
 Gln Leu Cys Glu Pro Leu His Ser Ile Leu Leu Thr Met Cys Glu Asp
 130 135 140
 cag cct cac agg cgg tgc acg ttg cag tcg gtt ctg gaa gct tgt cgg 598
 Gln Pro His Arg Arg Cys Thr Leu Gln Ser Val Leu Glu Ala Cys Arg
 145 150 155
 gtt cat gag aaa gaa gtg tct gtc tac cca gcc cct gct ggt ctc cac 646
 Val His Glu Lys Glu Val Ser Val Tyr Pro Ala Pro Ala Gly Leu His
 160 165 170 175
 atc aga agg ctg gtt ggc ttg gtt ctg ggt acc att tct gag gtc agt 694
 Ile Arg Arg Leu Val Gly Leu Val Leu Gly Thr Ile Ser Glu Val Ser
 180 185 190
 aga gaa ccg tgc ttt tca agc agt agc tgc tgg tca tgt gtg gct att 742
 Arg Glu Pro Cys Phe Ser Ser Ser Ser Cys Trp Ser Cys Val Ala Ile
 195 200 205
 aaa att tga attagttata ttatcattaa ctaaaataaa ataaaaaaaa a 792
 Lys Ile *
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<222> (309) .. (1625)

<400> 885

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tagagaagga aacggaacta aactggcggg ctccgtggaa gcgtggccgg cagcgtcccg      180
gacgaggaga gacagcgtct tgctcagtca ccaggtctgg agtgcagtga tcatagctca      240
tcgcatacctt gaactcctgg gcttaagcta tcctcccgcc ttagcctcct gaatagctgg      300
gaccacag atg tct ttg gtg gac ttg gga aag agg ttg cta gaa gca gca      350
      Met Ser Leu Val Asp Leu Gly Lys Arg Leu Leu Glu Ala Ala
              1              5              10

aga aaa ggc caa gat gat gaa gtg aga acg ttg atg gca aat ggc gcc      398
Arg Lys Gly Gln Asp Asp Glu Val Arg Thr Leu Met Ala Asn Gly Ala
      15              20              25              30

cca ttc acc aca gac tgg ttt tcc aaa ttg aga gtc tcc tgt gga tat      446
Pro Phe Thr Thr Asp Trp Phe Ser Lys Leu Arg Val Ser Cys Gly Tyr
              35              40              45

ata ggt gat aat tgt aag aat ggt gca gat gtg aat gcc aag gac atg      494
Ile Gly Asp Asn Cys Lys Asn Gly Ala Asp Val Asn Ala Lys Asp Met
              50              55              60

ctg aag atg aca gct ttg cat tgg gcc aca gag cgc cac cat cga gat      542
Leu Lys Met Thr Ala Leu His Trp Ala Thr Glu Arg His His Arg Asp
              65              70              75

gtc gta gag tta ctt atc aaa tat gga gct gat gtc cat gct ttc agc      590
Val Val Glu Leu Leu Ile Lys Tyr Gly Ala Asp Val His Ala Phe Ser
              80              85              90

aaa ttt gat aaa tca gcc ttt gac ata gct ctg gag aaa aac aat gct      638
Lys Phe Asp Lys Ser Ala Phe Asp Ile Ala Leu Glu Lys Asn Asn Ala
              95              100              105              110

gag att ttg gtc atc ctc cag gaa gca atg cag aat cag gtg aat gtt      686
Glu Ile Leu Val Ile Leu Gln Glu Ala Met Gln Asn Gln Val Asn Val
              115              120              125

aat cca gag aga gcc aac cct gtg act gac cct gtg agt atg gct gct      734
Asn Pro Glu Arg Ala Asn Pro Val Thr Asp Pro Val Ser Met Ala Ala
              130              135              140

cca ttc atc ttc acg tcg ggt gag gtt gtt aac ctc gca agc ctt att      782
Pro Phe Ile Phe Thr Ser Gly Glu Val Val Asn Leu Ala Ser Leu Ile
              145              150              155

tct tca acc aac acc aaa aca acc tca ggt gac ccc cat gcc tca aca      830
Ser Ser Thr Asn Thr Lys Thr Thr Ser Gly Asp Pro His Ala Ser Thr
              160              165              170

gta cag ttt tca aat tct acc acc tca gtg ctg gct acc ctt gca gct      878
Val Gln Phe Ser Asn Ser Thr Thr Ser Val Leu Ala Thr Leu Ala Ala
              175              180              185              190

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ctt gct gag gca tca gtc ccc ctc tcc aac tca cac aga gcc aca gcc	926
Leu Ala Glu Ala Ser Val Pro Leu Ser Asn Ser His Arg Ala Thr Ala	
195 200 205	
aat aca gag gaa att ata gaa gga aat tcc gtt gac tca tca atc cag	974
Asn Thr Glu Glu Ile Ile Glu Gly Asn Ser Val Asp Ser Ser Ile Gln	
210 215 220	
caa gta atg ggg agt gga ggc cag agg gtc atc acc ata gtg act gat	1022
Gln Val Met Gly Ser Gly Gly Gln Arg Val Ile Thr Ile Val Thr Asp	
225 230 235	
gga gtc cct ctg ggt aat atc caa act tca atc cct act gga ggc att	1070
Gly Val Pro Leu Gly Asn Ile Gln Thr Ser Ile Pro Thr Gly Gly Ile	
240 245 250	
ggc cag cca ttt att gta act gtg caa gat gga cag caa gtt cta act	1118
Gly Gln Pro Phe Ile Val Thr Val Gln Asp Gly Gln Gln Val Leu Thr	
255 260 265 270	
gta cct gct ggt aag ggt gca gag gag act gta att aaa gag gaa gaa	1166
Val Pro Ala Gly Lys Gly Ala Glu Glu Thr Val Ile Lys Glu Glu Glu	
275 280 285	
gaa gag aag ttg cca cta aca aag aaa cca agg ata gga gag aag aca	1214
Glu Glu Lys Leu Pro Leu Thr Lys Lys Pro Arg Ile Gly Glu Lys Thr	
290 295 300	
aac agt gtg gag gaa agc aag gaa ggc aat gaa aga gag cta cta cag	1262
Asn Ser Val Glu Glu Ser Lys Glu Gly Asn Glu Arg Glu Leu Leu Gln	
305 310 315	
caa caa ctc cag gag gcc aat cga aga gcc cag gaa tac cga cac cag	1310
Gln Gln Leu Gln Glu Ala Asn Arg Arg Ala Gln Glu Tyr Arg His Gln	
320 325 330	
ctc cta aag aaa gag cag gaa gca gaa cag tac cgt ctt aag ctg gag	1358
Leu Leu Lys Lys Glu Gln Glu Ala Glu Gln Tyr Arg Leu Lys Leu Glu	
335 340 345 350	
gcc ata gcc cga cag cag ccc aat gga gtt gat ttc acc atg gtt gaa	1406
Ala Ile Ala Arg Gln Gln Pro Asn Gly Val Asp Phe Thr Met Val Glu	
355 360 365	
gag gtg gct gag gta gat gct gta gta gtc aca gag ggg gag ttg gaa	1454
Glu Val Ala Glu Val Asp Ala Val Val Val Thr Glu Gly Glu Leu Glu	
370 375 380	
gag aga gag aca aaa gtg act ggg tca gca ggg gcc acg gag cct cac	1502
Glu Arg Glu Thr Lys Val Thr Gly Ser Ala Gly Ala Thr Glu Pro His	
385 390 395	
act aga ggt ttc cat ggc aac tgt ttc atc tta ata tgc aag ggc cac	1550
Thr Arg Gly Phe His Gly Asn Cys Phe Ile Leu Ile Cys Lys Gly His	
400 405 410	
aat ttg cac tgt gtt cat att aat cct ctt tta aaa aag gaa ata tac	1598
Asn Leu His Cys Val His Ile Asn Pro Leu Leu Lys Lys Glu Ile Tyr	
415 420 425 430	
aga aga caa aca ttg tat aaa aac taa gagtg tctttaagaa gaaaactata	1650
Arg Arg Gln Thr Leu Tyr Lys Asn *	
435	

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gcagggtaca atgcttgggc tcaggaagtt tctctgtgca actagaaaat tcaaagccat 1710
athtagggaa ctttttttct gaggggccaa aagaataaag gaccaaattt cttagctcat 1770
atcattgctt taaacataga agtaaaagaa tactgcatgt tgtggggtga tttttttttt 1830
ttaaataact gactttctca caaaagattt taagataaca tttctaatat atatgcacca 1890
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<210> 886
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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(1335)

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aga gca agt ctc att ttt tcc tta aag aat gaa gtt gga gga ctt ata 96
Arg Ala Ser Leu Ile Phe Ser Leu Lys Asn Glu Val Gly Gly Leu Ile
20 25 30

aaa gcc ctg aaa atc ttt cag gag aag cat gtg aat ctg tta cat atc 144
Lys Ala Leu Lys Ile Phe Gln Glu Lys His Val Asn Leu Leu His Ile
35 40 45

gag tcc cga aaa tca aaa aga aga aac tca gaa ttt gag att ttt gtt 192
Glu Ser Arg Lys Ser Lys Arg Arg Asn Ser Glu Phe Glu Ile Phe Val
50 55 60

gac tgt gac atc aac aga gaa caa ttg aat gat att ttt cat ctg ctg 240
Asp Cys Asp Ile Asn Arg Glu Gln Leu Asn Asp Ile Phe His Leu Leu
65 70 75 80

aag tct cat acc aat gtt ctc tct gtg aat cta cca gat aat ttt act 288
Lys Ser His Thr Asn Val Leu Ser Val Asn Leu Pro Asp Asn Phe Thr
85 90 95

ttg aag gaa gat ggt atg gaa act gtt cct tgg ttt cca aag aag att 336
Leu Lys Glu Asp Gly Met Glu Thr Val Pro Trp Phe Pro Lys Lys Ile
100 105 110

tct gac ctg gac cat tgt gcc aac aga gtt ctg atg tat gga tct gaa 384
Ser Asp Leu Asp His Cys Ala Asn Arg Val Leu Met Tyr Gly Ser Glu
115 120 125

cta gat gca gac cat cct ggc ttc aaa gac aat gtc tac cgt aaa cgt 432

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Leu	Asp	Ala	Asp	His	Pro	Gly	Phe	Lys	Asp	Asn	Val	Tyr	Arg	Lys	Arg		
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Arg	Lys	Tyr	Phe	Ala	Asp	Leu	Ala	Met	Asn	Tyr	Lys	His	Gly	Asp	Pro		
145					150				155						160		
att	cca	aag	gtt	gaa	ttc	act	gaa	gag	gag	att	aag	acc	tgg	gga	acc	528	
Ile	Pro	Lys	Val	Glu	Phe	Thr	Glu	Glu	Glu	Ile	Lys	Thr	Trp	Gly	Thr		
				165					170					175			
gta	ttc	caa	gag	ctc	aac	aaa	ctc	tac	cca	acc	cat	gct	tgc	aga	gag	576	
Val	Phe	Gln	Glu	Leu	Asn	Lys	Leu	Tyr	Pro	Thr	His	Ala	Cys	Arg	Glu		
			180					185					190				
tat	ctc	aaa	aac	tta	cct	ttg	ctt	tct	aaa	tat	tgt	gga	tat	cgg	gag	624	
Tyr	Leu	Lys	Asn	Leu	Pro	Leu	Leu	Ser	Lys	Tyr	Cys	Gly	Tyr	Arg	Glu		
		195				200						205					
gat	aat	atc	cca	caa	ttg	gaa	gat	gtc	tcc	aac	ttt	tta	aaa	gag	cgt	672	
Asp	Asn	Ile	Pro	Gln	Leu	Glu	Asp	Val	Ser	Asn	Phe	Leu	Lys	Glu	Arg		
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aca	ggt	ttt	tcc	atc	cgt	cct	gtg	gct	ggt	tac	tta	tca	cca	aga	gat	720	
Thr	Gly	Phe	Ser	Ile	Arg	Pro	Val	Ala	Gly	Tyr	Leu	Ser	Pro	Arg	Asp		
225					230					235					240		
ttc	tta	tca	ggt	tta	gcc	ttt	cga	gtt	ttt	cac	tgc	act	caa	tat	gtg	768	
Phe	Leu	Ser	Gly	Leu	Ala	Phe	Arg	Val	Phe	His	Cys	Thr	Gln	Tyr	Val		
				245					250					255			
aga	cac	agt	tca	gac	ccc	ttc	tat	acc	cca	gag	ccg	gat	acc	tgc	cat	816	
Arg	His	Ser	Ser	Asp	Pro	Phe	Tyr	Thr	Pro	Glu	Pro	Asp	Thr	Cys	His		
			260					265					270				
gaa	ctc	tta	ggt	cac	gtt	ccc	ctt	ttg	gct	gag	cca	agt	ttt	gct	cag	864	
Glu	Leu	Leu	Gly	His	Val	Pro	Leu	Leu	Ala	Glu	Pro	Ser	Phe	Ala	Gln		
		275					280					285					
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Phe	Ser	Gln	Glu	Ile	Gly	Leu	Ala	Ser	Leu	Gly	Ala	Ser	Glu	Glu	Ala		
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Cys	Lys	Gln	Asp	Gly	Gln	Leu	Arg	Val	Phe	Gly	Ala	Gly	Leu	Leu	Ser		
				325					330					335			
tct	atc	agt	gaa	ctc	aaa	cat	gtg	ctt	tct	gga	cat	gcc	aaa	gta	aag	1056	
Ser	Ile	Ser	Glu	Leu	Lys	His	Val	Leu	Ser	Gly	His	Ala	Lys	Val	Lys		
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Pro	Phe	Asp	Pro	Lys	Ile	Thr	Cys	Lys	Gln	Glu	Cys	Leu	Ile	Thr	Thr		
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Phe	Gln	Asp	Val	Tyr	Phe	Val	Ser	Glu	Ser	Phe	Glu	Asp	Ala	Lys	Glu		
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<213> Homo sapiens
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<222> (166)..(2742)
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ggg gag aca cgc ttc act gat acc cgg aag gac gag cag gag cgt tgc Gly Glu Thr Arg Phe Thr Asp Thr Arg Lys Asp Glu Gln Glu Arg Cys 55 60 65	366
atc acc atc aag tca act gcc atc tcc ctc ttc tac gag ctc tcg gag Ile Thr Ile Lys Ser Thr Ala Ile Ser Leu Phe Tyr Glu Leu Ser Glu 70 75 80	414
aat gac ttg aac ttc atc aag cag agc aag gac ggt gcc ggc ttc ctc Asn Asp Leu Asn Phe Ile Lys Gln Ser Lys Asp Gly Ala Gly Phe Leu 85 90 95	462
atc aac ctc att gac tcc ccc ggg cat gtc gac ttc tcc tcg gag gtg Ile Asn Leu Ile Asp Ser Pro Gly His Val Asp Phe Ser Ser Glu Val 100 105 110 115	510

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Thr Ala Ala Leu Arg Val Thr Asp Gly Ala Leu Val Val Val Asp Cys	
120 125 130	
gtg tca ggc gtg tgc gtg cag acg gag aca gtg ctg cgg cag gcc att	606
Val Ser Gly Val Cys Val Gln Thr Glu Thr Val Leu Arg Gln Ala Ile	
135 140 145	
gcc gag cgc atc aag cct gtg ctg atg atg aac aag atg gac cgc gcc	654
Ala Glu Arg Ile Lys Pro Val Leu Met Met Asn Lys Met Asp Arg Ala	
150 155 160	
ctg ctg gag ctg cag ctg gag ccc gag gag ctc tac cag act ttc cag	702
Leu Leu Glu Leu Gln Leu Glu Pro Glu Glu Leu Tyr Gln Thr Phe Gln	
165 170 175	
cgc atc gtg gag aac gtg aac gtc atc atc tcc acc tac ggc gag ggc	750
Arg Ile Val Glu Asn Val Asn Val Ile Ile Ser Thr Tyr Gly Glu Gly	
180 185 190 195	
gag agc ggc ccc atg ggc aac atc atg atc gat cct gtc ctc ggt acc	798
Glu Ser Gly Pro Met Gly Asn Ile Met Ile Asp Pro Val Leu Gly Thr	
200 205 210	
gtg ggc ttt ggg tct ggc ctc cac ggg tgg gcc ttc acc ctg aag cag	846
Val Gly Phe Gly Ser Gly Leu His Gly Trp Ala Phe Thr Leu Lys Gln	
215 220 225	
ttt gcc gag atg tat gtg gcc aag ttc gcc gcc aag ggg gag ggc cag	894
Phe Ala Glu Met Tyr Val Ala Lys Phe Ala Ala Lys Gly Glu Gly Gln	
230 235 240	
ttg ggg cct gcc gag cgg gcc aag aaa gta gag gac atg atg aag aag	942
Leu Gly Pro Ala Glu Arg Ala Lys Lys Val Glu Asp Met Met Lys Lys	
245 250 255	
ctg tgg ggt gac agg tac ttt gac cca gcc aac ggc aag ttc agc aag	990
Leu Trp Gly Asp Arg Tyr Phe Asp Pro Ala Asn Gly Lys Phe Ser Lys	
260 265 270 275	
tca gcc acc agc ccc gaa ggg aag aag ctg cca cgc acc ttc tgc cag	1038
Ser Ala Thr Ser Pro Glu Gly Lys Lys Leu Pro Arg Thr Phe Cys Gln	
280 285 290	
ctg atc ctg gac ccc atc ttc aag gtg ttt gat gcg atc atg aat ttc	1086
Leu Ile Leu Asp Pro Ile Phe Lys Val Phe Asp Ala Ile Met Asn Phe	
295 300 305	
aag aaa gag gag aca gca aaa ctg ata gag aaa ctg gac atc aaa ctg	1134
Lys Lys Glu Glu Thr Ala Lys Leu Ile Glu Lys Leu Asp Ile Lys Leu	
310 315 320	
gac agc gag gac aag gac aaa gaa ggc aaa ccc ctg ctg aag gct gtg	1182
Asp Ser Glu Asp Lys Asp Lys Glu Gly Lys Pro Leu Leu Lys Ala Val	
325 330 335	
atg cgc cgc tgg ctg cct gcc gga gac gcc ttg ttg cag atg atc acc	1230
Met Arg Arg Trp Leu Pro Ala Gly Asp Ala Leu Leu Gln Met Ile Thr	
340 345 350 355	
atc cac ctg ccc tcc cct gtg acg gcc cag aag tac cgc tgc gag ctc	1278
Ile His Leu Pro Ser Pro Val Thr Ala Gln Lys Tyr Arg Cys Glu Leu	
360 365 370	

ctg tac gag ggg ccc ccg gac gac gag gct gcc atg ggc att aaa agc	1326
Leu Tyr Glu Gly Pro Pro Asp Asp Glu Ala Ala Met Gly Ile Lys Ser	
375 380 385	
tgt gac ccc aaa ggc cct ctt atg atg tat att tcc aaa atg gtg cca	1374
Cys Asp Pro Lys Gly Pro Leu Met Met Tyr Ile Ser Lys Met Val Pro	
390 395 400	
acc tcc gac aaa ggt cgg ttc tac gcc ttt gga cga gtc ttc tcg ggg	1422
Thr Ser Asp Lys Gly Arg Phe Tyr Ala Phe Gly Arg Val Phe Ser Gly	
405 410 415	
ctg gtc tcc act ggc ctg aag gtc agg atc atg ggg ccc aac tat acc	1470
Leu Val Ser Thr Gly Leu Lys Val Arg Ile Met Gly Pro Asn Tyr Thr	
420 425 430 435	
cct ggg aag aag gag gac ctc tac ctg aag cca atc cag aga aca atc	1518
Pro Gly Lys Lys Glu Asp Leu Tyr Leu Lys Pro Ile Gln Arg Thr Ile	
440 445 450	
ttg atg atg ggc cgc tac gtg gag ccc atc gag gat gtg cct tgt ggg	1566
Leu Met Met Gly Arg Tyr Val Glu Pro Ile Glu Asp Val Pro Cys Gly	
455 460 465	
aac att gtg ggc ctc gtg ggc gtg gac cag ttc ctg gtg aag acg ggc	1614
Asn Ile Val Gly Leu Val Gly Val Asp Gln Phe Leu Val Lys Thr Gly	
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Thr Ile Thr Thr Phe Glu His Ala His Asn Met Arg Val Met Lys Phe	
485 490 495	
agc gtc agc cct gtt gtc aga gtg gcc gtg gag gcc aag aac ccg gct	1710
Ser Val Ser Pro Val Val Arg Val Ala Val Glu Ala Lys Asn Pro Ala	
500 505 510 515	
gac ctg ccc aag ctg gtg gag ggg ctg aag cgg ctg gcc aag tcc gac	1758
Asp Leu Pro Lys Leu Val Glu Gly Leu Lys Arg Leu Ala Lys Ser Asp	
520 525 530	
ccc atg gtg cag tgc atc atc gag gag tcg gga gag cac atc atc gcg	1806
Pro Met Val Gln Cys Ile Ile Glu Glu Ser Gly Glu His Ile Ile Ala	
535 540 545	
ggc gcc ggc gag ctg cac ctg gag atc tgc ctg aag gac ctg gag gag	1854
Gly Ala Gly Glu Leu His Leu Glu Ile Cys Leu Lys Asp Leu Glu Glu	
550 555 560	
gac cac gcc tgc atc ccc atc aag aaa tct gac ccg gtc gtc tcg tac	1902
Asp His Ala Cys Ile Pro Ile Lys Lys Ser Asp Pro Val Val Ser Tyr	
565 570 575	
cgc gag acg gtc agt gaa gag tcg aac gtg ctc tgc ctc tcc aag tcc	1950
Arg Glu Thr Val Ser Glu Glu Ser Asn Val Leu Cys Leu Ser Lys Ser	
580 585 590 595	
ccc aac aag cac aac cgg ctg tac atg aag gcg cgg ccc ttc ccc gac	1998
Pro Asn Lys His Asn Arg Leu Tyr Met Lys Ala Arg Pro Phe Pro Asp	
600 605 610	
ggc ctg gcc gag gac atc gat aaa ggc gag gtg tcc gcc cgt cag gag	2046
Gly Leu Ala Glu Asp Ile Asp Lys Gly Glu Val Ser Ala Arg Gln Glu	
615 620 625	

ctc aag cag cgg gcg cgc tac ctg gcc gag aag tac gag tgg gac gtg Leu Lys Gln Arg Ala Arg Tyr Leu Ala Glu Lys Tyr Glu Trp Asp Val 630 635 640	2094
gct gag gcc cgc aag atc tgg tgc ttt ggg ccc gac ggc acc ggc ccc Ala Glu Ala Arg Lys Ile Trp Cys Phe Gly Pro Asp Gly Thr Gly Pro 645 650 655	2142
aac atc ctc acc gac atc acc aag ggt gtg cag tac ctc aac gag atc Asn Ile Leu Thr Asp Ile Thr Lys Gly Val Gln Tyr Leu Asn Glu Ile 660 665 670 675	2190
aag gac agt gtg gtg gcc ggc ttc cag tgg gcc acc aag gag ggc gca Lys Asp Ser Val Val Ala Gly Phe Gln Trp Ala Thr Lys Glu Gly Ala 680 685 690	2238
ctg tgt gag gag aac atg cgg ggt gtg cgc ttc gac gtc cac gac gtc Leu Cys Glu Glu Asn Met Arg Gly Val Arg Phe Asp Val His Asp Val 695 700 705	2286
acc ctg cac gcc gac gcc atc cac cgc gga ggg ggc cag atc atc ccc Thr Leu His Ala Asp Ala Ile His Arg Gly Gly Gly Gln Ile Ile Pro 710 715 720	2334
aca gca cgg cgc tgc ctc tac gcc agt gtg ctg acc gcc cag cca cgc Thr Ala Arg Arg Cys Leu Tyr Ala Ser Val Leu Thr Ala Gln Pro Arg 725 730 735	2382
ctc atg gag ccc atc tac ctt gtg gag atc cag tgt cca gag cag gtg Leu Met Glu Pro Ile Tyr Leu Val Glu Ile Gln Cys Pro Glu Gln Val 740 745 750 755	2430
gtc ggt ggc atc tac ggg gtt ttg aac agg aag cgg ggc cac gtg ttc Val Gly Gly Ile Tyr Gly Val Leu Asn Arg Lys Arg Gly His Val Phe 760 765 770	2478
gag gag tcc cag gtg gcc ggc acc ccc atg ttt gtg gtc aag gcc tat Glu Glu Ser Gln Val Ala Gly Thr Pro Met Phe Val Val Lys Ala Tyr 775 780 785	2526
ctg ccc gtc aac gag tcc ttt ggc ttc acc gct gac ctg agg tcc aac Leu Pro Val Asn Glu Ser Phe Gly Phe Thr Ala Asp Leu Arg Ser Asn 790 795 800	2574
acg ggc ggc cag gcg ttc ccc cag tgt gtg ttt gac cac tgg cag atc Thr Gly Gly Gln Ala Phe Pro Gln Cys Val Phe Asp His Trp Gln Ile 805 810 815	2622
ctg ccc gga gac ccc ttc gac aac agc agc cgc ccc agc cag gtg gtg Leu Pro Gly Asp Pro Phe Asp Asn Ser Ser Arg Pro Ser Gln Val Val 820 825 830 835	2670
gcg gag acc cgc aag cgc aag ggc ctg aaa gaa ggc atc cct gcc ctg Ala Glu Thr Arg Lys Arg Lys Gly Leu Lys Glu Gly Ile Pro Ala Leu 840 845 850	2718
gac aac ttc ctg gac aaa ttg tag gcggcccttc ctgcagcgcg tgccgccccg Asp Asn Phe Leu Asp Lys Leu *	2772
855	
gggactcgca gcacccacag caccacgtcc tcgaattctc agacgacacc tggagactgt	2832
cccgacacag cgacgtctcc ctgagagggt tctggggccc gctgcgtgcc atcactcaac	2892

cataacactt gatgccgttt ctttcaatat ttatttccag agtccggagg cagcagacac 2952
gccctcttag tagggactta atgggccggt cggggagggg gaggcgggat gggacaccca 3012
acactttttc catttcttca gagggaaact cagatgtcca aactaatttt tcaaaaccta 3072
attttaacaa acgcattaag aggtttattt gggtagatgg cccgcagtgg cttttgcccc 3132
agaaagggga aaggaacacg cgggtagatg atttctagca ggcaggaagt cctgtgcggt 3192
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gagagaggag agcctcagga gttaggacca gaagaagcca gggaagcagt gca atg 176
Met
1
gct tca aaa atc ttg ctt aac gta caa gag gag gtg acc tgt ccc atc 224
Ala Ser Lys Ile Leu Leu Asn Val Gln Glu Glu Val Thr Cys Pro Ile
5 10 15
tgc ctg gag ctg ttg aca gaa ccc ttg agt cta gac tgt ggc cac agc 272
Cys Leu Glu Leu Leu Thr Glu Pro Leu Ser Leu Asp Cys Gly His Ser
20 25 30
ctc tgc cga gcc tgc atc act gtg agc aac aag gag gca gtg acc agc 320
Leu Cys Arg Ala Cys Ile Thr Val Ser Asn Lys Glu Ala Val Thr Ser
35 40 45
atg gga gga aaa agc agc tgt cct gtg tgt ggt atc agt tac tca ttt 368
Met Gly Gly Lys Ser Ser Cys Pro Val Cys Gly Ile Ser Tyr Ser Phe
50 55 60 65
gaa cat cta cag gct aat cag cat ctg gcc aac ata gtg gag aga ctc 416
Glu His Leu Gln Ala Asn Gln His Leu Ala Asn Ile Val Glu Arg Leu
70 75 80
aag gag gtc aag ttg agc cca gac aat ggg aag aag aga gat ctc tgt 464
Lys Glu Val Lys Leu Ser Pro Asp Asn Gly Lys Lys Arg Asp Leu Cys
85 90 95
gat cat cat gga gag aaa ctc cta ctc ttc tgt aag gag gat agg aaa 512
Asp His His Gly Glu Lys Leu Leu Leu Phe Cys Lys Glu Asp Arg Lys
100 105 110

gtc att tgc tgg ctt tgt gag cgg tct cag gag cac cgt ggt cac cac 560
 Val Ile Cys Trp Leu Cys Glu Arg Ser Gln Glu His Arg Gly His His
 115 120 125

 aca gtc ctc acg gag gaa gta ttc aag gaa tgt cag gag aaa ctc cag 608
 Thr Val Leu Thr Glu Glu Val Phe Lys Glu Cys Gln Glu Lys Leu Gln
 130 135 140 145

 gca gtc ctc aag agg ctg aag aag gaa gag gag gaa gct gag aag ctg 656
 Ala Val Leu Lys Arg Leu Lys Lys Glu Glu Glu Glu Ala Glu Lys Leu
 150 155 160

 gaa gct gac atc aga gaa gag aaa act tcc tgg aag tat cag gta caa 704
 Glu Ala Asp Ile Arg Glu Glu Lys Thr Ser Trp Lys Tyr Gln Val Gln
 165 170 175

 act gag aga caa agg ata caa aca gaa ttt gat cag ctt aga agc atc 752
 Thr Glu Arg Gln Arg Ile Gln Thr Glu Phe Asp Gln Leu Arg Ser Ile
 180 185 190

 cta aat aat gag gag cag aga gag ctg caa aga ttg gaa aaa aaa aaa 800
 Leu Asn Asn Glu Glu Gln Arg Glu Leu Gln Arg Leu Glu Lys Lys Lys
 195 200 205

 aaa aag atc ttt aat taa gcggccgcaa gctta 833
 Lys Lys Ile Phe Asn *
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 Met Asp Ser Val
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 gcc ttt gaa gat gtg gct gtg aac ttc aca caa gag gag tgg gct ttg 162
 Ala Phe Glu Asp Val Ala Val Asn Phe Thr Gln Glu Glu Trp Ala Leu
 5 10 15 20

 ctg ggt cca tca cag aag agt ctc tac aga aat gtc atg cag gaa acc 210
 Leu Gly Pro Ser Gln Lys Ser Leu Tyr Arg Asn Val Met Gln Glu Thr
 25 30 35

 att agg aac ctg gac tgt ata gaa atg aaa tgg gag gac cag aac att 258
 Ile Arg Asn Leu Asp Cys Ile Glu Met Lys Trp Glu Asp Gln Asn Ile
 40 45 50

 gga gat cag tgc caa aat gcc aag aga aat cta aga agt cat aca tgt 306
 Gly Asp Gln Cys Gln Asn Ala Lys Arg Asn Leu Arg Ser His Thr Cys
 55 60 65

gaa att aaa gat gac agt caa tgt gga gaa act ttt ggc cag att cca	354
Glu Ile Lys Asp Asp Ser Gln Cys Gly Glu Thr Phe Gly Gln Ile Pro	
70 75 80	
gat agt att gtg aac aag aac act cct cga gta aat cca tgt gac agt	402
Asp Ser Ile Val Asn Lys Asn Thr Pro Arg Val Asn Pro Cys Asp Ser	
85 90 95 100	
ggt gag tgt gga gaa gtc gtc ttg ggt cat tcg tct ctt aat tgc aac	450
Gly Glu Cys Gly Glu Val Val Leu Gly His Ser Ser Leu Asn Cys Asn	
105 110 115	
atc aga gtt gac act gga cac aaa tca tgt gag cat cag gaa tat gga	498
Ile Arg Val Asp Thr Gly His Lys Ser Cys Glu His Gln Glu Tyr Gly	
120 125 130	
gag aag cca tat aca cat aaa caa cgt ggg aaa gcc atc agt cat cag	546
Glu Lys Pro Tyr Thr His Lys Gln Arg Gly Lys Ala Ile Ser His Gln	
135 140 145	
cac tcc ttc cag aca cat gaa agg ccc ccc acc gga aag aaa ccc ttc	594
His Ser Phe Gln Thr His Glu Arg Pro Pro Thr Gly Lys Lys Pro Phe	
150 155 160	
gat tgt aaa gaa tgt gca aaa acc ttt agt tct ctt gga aac ctc cga	642
Asp Cys Lys Glu Cys Ala Lys Thr Phe Ser Ser Leu Gly Asn Leu Arg	
165 170 175 180	
aga cac atg gcg gca cac cat gga gat gga cct tat aaa tgt aag ttg	690
Arg His Met Ala Ala His His Gly Asp Gly Pro Tyr Lys Cys Lys Leu	
185 190 195	
tgt ggg aaa gcc ttt gtt tgg ccc agt tta ttt cat ttg cac gaa aga	738
Cys Gly Lys Ala Phe Val Trp Pro Ser Leu Phe His Leu His Glu Arg	
200 205 210	
aca cac act gga gag aaa ccg tat gaa tgt aag cag tgt tct aaa gcc	786
Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys Ser Lys Ala	
215 220 225	
ttt cct ttt tac agt tcc tat cta aga cat gaa aga atc cac acg gga	834
Phe Pro Phe Tyr Ser Ser Tyr Leu Arg His Glu Arg Ile His Thr Gly	
230 235 240	
gag aaa gcg tat gaa tgt aag cag tgt tcc aaa gcc ttt cct gat tac	882
Glu Lys Ala Tyr Glu Cys Lys Gln Cys Ser Lys Ala Phe Pro Asp Tyr	
245 250 255 260	
agt acc tat cta aga cat gag aga act cac acc gga gag aaa ccc tat	930
Ser Thr Tyr Leu Arg His Glu Arg Thr His Thr Gly Glu Lys Pro Tyr	
265 270 275	
aaa tgt aca caa tgt ggg aaa gcc ttc agc tgt tac tat tac act cga	978
Lys Cys Thr Gln Cys Gly Lys Ala Phe Ser Cys Tyr Tyr Tyr Thr Arg	
280 285 290	
cta cat gaa agg act cac acg gga gaa caa ccc tat gca tgt aag caa	1026
Leu His Glu Arg Thr His Thr Gly Glu Gln Pro Tyr Ala Cys Lys Gln	
295 300 305	
tgt ggg aaa acg ttt tat cat cac aca agc ttt cga aga cac atg ata	1074
Cys Gly Lys Thr Phe Tyr His His Thr Ser Phe Arg Arg His Met Ile	
310 315 320	

agg cac act gga gac gga cca cat aaa tgt aag ata tgt ggg aaa ggc	1122
Arg His Thr Gly Asp Gly Pro His Lys Cys Lys Ile Cys Gly Lys Gly	
325 330 335 340	
ttt gat tgt cct agt tca gtt cga aat cat gaa act act cac act gga	1170
Phe Asp Cys Pro Ser Ser Val Arg Asn His Glu Thr Thr His Thr Gly	
345 350 355	
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Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Val Leu Ser His Ser	
360 365 370	
tcg agc ttt cga agt cac atg ata aca cac aca gga gat gga ccc cag	1266
Ser Ser Phe Arg Ser His Met Ile Thr His Thr Gly Asp Gly Pro Gln	
375 380 385	
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Lys Cys Lys Ile Cys Gly Lys Ala Phe Gly Cys Pro Ser Leu Phe Gln	
390 395 400	
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Arg His Glu Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys Lys Gln	
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Cys Gly Lys Ala Phe Ser Leu Ala Gly Ser Leu Arg Arg His Glu Ala	
425 430 435	
act cac act gga gtg aaa ccc tat aaa tgt cag tgt ggg aaa gcc ttt	1458
Thr His Thr Gly Val Lys Pro Tyr Lys Cys Gln Cys Gly Lys Ala Phe	
440 445 450	
agt gat ctc tct tcc ttt caa aat cat gag aca act cac act gga gag	1506
Ser Asp Leu Ser Ser Phe Gln Asn His Glu Thr Thr His Thr Gly Glu	
455 460 465	
aag cca tat gag tgt aag gaa tgt ggg aaa gca ttc agt tgt ttc aaa	1554
Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ser Cys Phe Lys	
470 475 480	
tac ctt tct caa cat aaa agg acc cac aca gta gaa aaa cct tat gag	1602
Tyr Leu Ser Gln His Lys Arg Thr His Thr Val Glu Lys Pro Tyr Glu	
485 490 495 500	
tgt aaa aca tgt aga aaa gcc ttc agt cat ttc agt aac tta aaa gtc	1650
Cys Lys Thr Cys Arg Lys Ala Phe Ser His Phe Ser Asn Leu Lys Val	
505 510 515	
cat gaa agg att cac tct gga gag aag cca tat gaa tgt aag gaa tgt	1698
His Glu Arg Ile His Ser Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys	
520 525 530	
gga aaa gca ttc tct tgg ctc act tgc ctt cta cga cat gaa aga att	1746
Gly Lys Ala Phe Ser Trp Leu Thr Cys Leu Leu Arg His Glu Arg Ile	
535 540 545	
cac act gga gag aaa ccc tat gaa tgt cta caa tgt ggt aaa gcc ttc	1794
His Thr Gly Glu Lys Pro Tyr Glu Cys Leu Gln Cys Gly Lys Ala Phe	
550 555 560	
act cgt tcc cgt ttc ctt cga gga cat gaa aaa act cac act gga gag	1842
Thr Arg Ser Arg Phe Leu Arg Gly His Glu Lys Thr His Thr Gly Glu	
565 570 575 580	

aag ctg tat gaa tgt aag gaa tgt ggg aaa gca ttg agt tct ctc cgt 1890
Lys Leu Tyr Glu Cys Lys Glu Cys Gly Lys Ala Leu Ser Ser Leu Arg
585 590 595

tcc ttg cat aga cat aaa agg act cac tgg aaa gat act ctc taa atg 1938
Ser Leu His Arg His Lys Arg Thr His Trp Lys Asp Thr Leu *
600 605 610

tatggaatgt gggaaaacat tcagtacttt aatttcagaa acttgaaaga actcactttg 1998
gagatagacc ctatgaatgt aaacatggga taaagcctta agtagtttca atttttttaa 2058
atacagttat cccccaatat attgcagggg attggttcca gcaccctcta aatccacaga 2118
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tgtgtaaatc atctctagat gacttttaat acctcatgca ttgtaaaagc tatgtaaata 2238
gttgtttgat tgtattgttt agagaatcat gacaagaaaa atagtctcta catgttcgat 2298
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gttttaacat tcaaaaaaaaa aaaaaaa 2385

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acccggctcc aaaagctccc agggcctccc caggcaccgg tgctcgcccc ttccttcggt 180
cagaaagtcg cccctggggg gcagttcgtc ccaaagggtt tcctcgaaag aatctgagag 240
ggcgcagtc ttgaccgagg gaatctctct gtgtagcctt ggaagccgcc agccccagaa 300
g atg cct gcc ttc aat aga ttg ttt ccc ctg gct tct ctc gtg ctt 346
Met Pro Ala Phe Asn Arg Leu Phe Pro Leu Ala Ser Leu Val Leu
1 5 10 15

atc tac tgg gtc agt gtc tgc ttc cct gtg tgt gtg gaa gtg ccc tcg 394
Ile Tyr Trp Val Ser Val Cys Phe Pro Val Cys Val Glu Val Pro Ser
20 25 30

gag acg gag gcc gtg cag ggc aac ccc atg aag ctg cgc tgc atc tcc 442
Glu Thr Glu Ala Val Gln Gly Asn Pro Met Lys Leu Arg Cys Ile Ser
35 40 45

tgc atg aag aga gag gag gtg gag gcc acc acg gtg gtg gaa tgg ttc 490
Cys Met Lys Arg Glu Glu Val Glu Ala Thr Thr Val Val Glu Trp Phe
50 55 60

tac agg ccc gag ggc ggt aaa gat ttc ctt att tac gag tat cgg aat 538

Tyr Arg Pro Glu Gly Gly Lys Asp Phe Leu Ile Tyr Glu Tyr Arg Asn
 65 70 75
 ggc cac cag gag gtg gag agc ccc ttt cag ggg cgc ctg cag tgg aat 586
 Gly His Gln Glu Val Glu Ser Pro Phe Gln Gly Arg Leu Gln Trp Asn
 80 85 90 95
 ggc agc aag gac ctg cag gac gtg tcc atc act gtg ctc aac gtc act 634
 Gly Ser Lys Asp Leu Gln Asp Val Ser Ile Thr Val Leu Asn Val Thr
 100 105 110
 ctg aac gac tct ggc ctc tac acc tgc aat gtg tcc cgg gag ttt gag 682
 Leu Asn Asp Ser Gly Leu Tyr Thr Cys Asn Val Ser Arg Glu Phe Glu
 115 120 125
 ttt gag gcg cat cgg ccc ttt gtg aag acg acg cgg ctg atc ccc cta 730
 Phe Glu Ala His Arg Pro Phe Val Lys Thr Thr Arg Leu Ile Pro Leu
 130 135 140
 aga gtc acc gag gag gct gga gag gac ttc acc tct gtg gtc tca gaa 778
 Arg Val Thr Glu Glu Ala Gly Glu Asp Phe Thr Ser Val Val Ser Glu
 145 150 155
 atc atg atg tac atc ctt ctg gtc ttc ctc acc ttg tgg ctg ctc atc 826
 Ile Met Met Tyr Ile Leu Leu Val Phe Leu Thr Leu Trp Leu Leu Ile
 160 165 170 175
 gag atg ata tat tgc tac aga aag gtc tca aaa gcc gaa gag gca gcc 874
 Glu Met Ile Tyr Cys Tyr Arg Lys Val Ser Lys Ala Glu Glu Ala Ala
 180 185 190
 caa gaa aac gcg taa gtccagagat gccaaagtaa taatgaaagc tagcaccttc 929
 Gln Glu Asn Ala *
 195
 agaatgcttg ctctcacagg tgagggtgcta agcagtttac attcatccgg acgcgtgggt 989
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 <213> Homo sapiens

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 acc caa aaa aag aga tct ctc gag gat ccg aat tcg cgg ccg cgt cga 96
 Thr Gln Lys Lys Arg Ser Leu Glu Asp Pro Asn Ser Arg Pro Arg Arg
 15 20 25 30
 cct ttc ttt aaa agt gtg aag gaa gaa gtg ttc tgg agg aac tac ttt 144
 Pro Phe Phe Lys Ser Val Lys Glu Glu Val Phe Trp Arg Asn Tyr Phe
 35 40 45

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tac cgc gtc tcc ctg att aag cag tca gcc cag ctc acg gcc ctg gct      192
Tyr Arg Val Ser Leu Ile Lys Gln Ser Ala Gln Leu Thr Ala Leu Ala
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gcc caa cag cag gcc gca ggg aag gag gag aag agc aat ggc aga gag      240
Ala Gln Gln Gln Ala Ala Gly Lys Glu Glu Lys Ser Asn Gly Arg Glu
          65                      70                      75

caa gat ttg ccg ctg gca gag gca gta cgg ccc aaa acg cca ccc gtt      288
Gln Asp Leu Pro Leu Ala Glu Ala Val Arg Pro Lys Thr Pro Pro Val
          80                      85                      90

gta atc aaa tct cag ctt aaa act caa gag gat gag gaa gaa att tct      336
Val Ile Lys Ser Gln Leu Lys Thr Gln Glu Asp Glu Glu Glu Ile Ser
          95                      100                      105                      110

act agc cca ggt gtt tct gag ttt gtc agt gat gcc ttc gat gcc tgt      384
Thr Ser Pro Gly Val Ser Glu Phe Val Ser Asp Ala Phe Asp Ala Cys
          115                      120                      125

aac cta aat cag gaa gat cta agg aaa gaa atg gag caa cta gtg ctt      432
Asn Leu Asn Gln Glu Asp Leu Arg Lys Glu Met Glu Gln Leu Val Leu
          130                      135                      140

gac aaa aag caa gag gag aca gcc gta ctg gaa gag gat tct gca gat      480
Asp Lys Lys Gln Glu Glu Thr Ala Val Leu Glu Glu Asp Ser Ala Asp
          145                      150                      155

tgg gaa aaa gaa ctg cag cag gaa ctt caa gaa tat gaa gtg gtg aca      528
Trp Glu Lys Glu Leu Gln Gln Glu Leu Gln Glu Tyr Glu Val Val Thr
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gaa tct gaa aaa cga gat gaa aac tgg gat aag gaa ata gag aaa atg      576
Glu Ser Glu Lys Arg Asp Glu Asn Trp Asp Lys Glu Ile Glu Lys Met
          175                      180                      185                      190

ctt caa gag gaa aat tag ctgttc ctgaaataga agaataatcc ttaacagtct      630
Leu Gln Glu Glu Asn *
          195

gcaaactgac attaaattct agatgttgac aattactgaa tcagaaggca tgaaagagta      690

taattttatg aaattcaaaa ttattctttt ttcaagttga aacttgcctc ttctacttta      750

aaaaagtata tagaacagtt acttctaata atcagaaaga gatgttttat agaacatttc      810

tttaatatata agttagagat gtcttcatag gcagtatggc tatctttgcc acagaaacat      870

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Pro Ala Pro Arg Ala Arg Glu Gln Pro Arg Val Pro Gly Glu Arg Gln
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Pro Leu Leu Pro Arg Gly Ala Arg Gly Pro Arg Arg Trp Arg Arg Ala
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Ala Gly Ala Ala Val Leu Leu Val Glu Met Leu Glu Arg Ala Ala Phe
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Phe Gly Val Thr Ala Asn Leu Val Leu Tyr Leu Asn Ser Thr Asn Phe
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aac tgg acc ggc gag cag gcg acg cgc gcc gcg ctg gta ttc ctg ggc      477
Asn Trp Thr Gly Glu Gln Ala Thr Arg Ala Ala Leu Val Phe Leu Gly
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gcc tcc tac ctg ctg gcg ccc gtg ggc ggc tgg ctg gcc gac gtg tac      525
Ala Ser Tyr Leu Leu Ala Pro Val Gly Gly Trp Leu Ala Asp Val Tyr
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ctg ggc cgc tac cgc gcg gtc gcg ctc agc ctg ctg ctc tac ctg gcc      573
Leu Gly Arg Tyr Arg Ala Val Ala Leu Ser Leu Leu Leu Tyr Leu Ala
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gcc tcg ggc ctg ctg ccc gcc acc gcc ttc ccc gac ggc cgc agc tcc      621
Ala Ser Gly Leu Leu Pro Ala Thr Ala Phe Pro Asp Gly Arg Ser Ser
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ttc tgc gga gag atg ccc gcg tcg ccg ctg gga cct gcc tgc ccc tcg      669
Phe Cys Gly Glu Met Pro Ala Ser Pro Leu Gly Pro Ala Cys Pro Ser
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gcc ggc tgc ccg cgc tcc tcg ccc agc ccc tac tgc gcg ccc gtc ctc      717
Ala Gly Cys Pro Arg Ser Ser Pro Ser Pro Tyr Cys Ala Pro Val Leu
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tac gcg ggc ctg ctg cta ctc ggc ctg gcc gcc agc tcc gtc cgg agc      765
Tyr Ala Gly Leu Leu Leu Leu Gly Leu Ala Ala Ser Ser Val Arg Ser
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Asn Leu Thr Ser Phe Gly Ala Asp Gln Val Met Asp Leu Gly Arg Asp
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gcc acc cgc cgc ttc ttc aac tgg ttt tac tgg agc atc aac ctg ggt      861
Ala Thr Arg Arg Phe Phe Asn Trp Phe Tyr Trp Ser Ile Asn Leu Gly
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gct gtg ctg tcg ctg ctg gtg gtg gcg ttt att cag cag aac atc agc      909

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Phe Ile Phe Leu Phe Ala Thr Pro Val Phe Ile Thr Lys Pro Pro Met	
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Gly Ser Gln Val Ser Ser Met Leu Lys Leu Ala Leu Gln Asn Cys Cys	
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Pro Gln Leu Trp Gln Arg His Ser Ala Arg Asp Arg Gln Cys Ala Arg	
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Asp Ile Ala Asn Phe Gln Val Leu Val Lys Ile Leu Pro Val Met Val	
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Thr Leu Val Pro Tyr Trp Met Val Tyr Phe Gln Met Gln Ser Thr Tyr	
325 330 335	
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Val Leu Gln Gly Leu His Leu His Ile Pro Asn Ile Phe Pro Ala Asn	
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ccg gcc aac atc tct gtg gcc ctg aga gcc cag ggc agc agc tac acg	1341
Pro Ala Asn Ile Ser Val Ala Leu Arg Ala Gln Gly Ser Ser Tyr Thr	
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atc ccg gaa gcc tgg ctc ctc ctg gcc aat gtt gtg gtg gtg ctg att	1389
Ile Pro Glu Ala Trp Leu Leu Leu Ala Asn Val Val Val Val Leu Ile	
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Gly Phe Thr Ser Val Ile Val Ala Gly Val Leu Glu Met Glu Arg Leu	
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His Tyr Ile His His Asn Glu Thr Val Ser Gln Gln Ile Gly Glu Val	
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Leu Tyr Asn Ala Ala Pro Leu Ser Ile Trp Trp Gln Ile Pro Gln Tyr	
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Leu Leu Ile Gly Ile Ser Glu Ile Phe Ala Ser Ile Pro Gly Leu Glu
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 Phe Ala Tyr Ser Glu Ala Pro Arg Ser Met Gln Gly Ala Ile Met Gly
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 Met Gly Pro Pro Ser Leu Val Leu Cys Leu Leu Ser Ala Thr Val Phe
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Ala	Phe	Val	Thr	Thr	Pro	Met	Cys	Cys	Pro	Ser	Arg	Ser	Ser	Ile	Leu			
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Leu	Asn	Glu	Tyr	Asn	Gly	Ser	Tyr	Val	Pro	Pro	Gly	Trp	Lys	Glu	Trp			
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aca	gac	ctc	atc	acc	aat	gac	agc	gtg	agc	ttc	ttc	cgc	acg	tcc	aag	804		
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Asn	Ala	Ser	Gln	His	Ile	Thr	Pro	Ser	Tyr	Asn	Tyr	Ala	Pro	Asn	Pro			
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Asp	Lys	His	Trp	Ile	Met	Arg	Tyr	Thr	Gly	Pro	Met	Lys	Pro	Ile	His			
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Met	Glu	Phe	Thr	Asn	Met	Leu	Gln	Arg	Lys	Arg	Leu	Gln	Thr	Leu	Met			
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Ala Ala Asn Pro Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn				
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Asp Thr Val Gln Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp				
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Lys Asp His Lys Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn				
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Lys Ile Lys Asn Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg				
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Pro Glu Glu Cys Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys				
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ggc cgc ctc aag cac aga ggc tcc agt ctg cat cct ttc agg aag ggc				2244
Gly Arg Leu Lys His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly				
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Leu Gln Glu Lys Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys				
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Ser Met Pro Gly Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln				
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Thr Ala Pro Phe Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala				
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Asp Val Leu Asn Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys				

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ctt aaa gat gga gga agc tat gag caa tac agg cag ttt cag cgt cga				2724
Leu Lys Asp Gly Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg				
	835	840	845	
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Lys Trp Pro Glu Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu				
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Met Gly Pro Pro Ser Leu Val Leu Cys Leu Leu Ser Ala Thr Val Phe	
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aac ggg gtg aaa gag aag cac ggc tcc gac tac tcc aag gat tac ctc Asn Gly Val Lys Glu Lys His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu 180 185 190	756
aca gac ctc atc acc aat gac agc gtg agc ttc ttc cgc acg tcc aag Thr Asp Leu Ile Thr Asn Asp Ser Val Ser Phe Phe Arg Thr Ser Lys 195 200 205	804
aag atg tac ccg cac agg cca gtc ctc atg gtc atc agc cat gca gcc Lys Met Tyr Pro His Arg Pro Val Leu Met Val Ile Ser His Ala Ala 210 215 220	852
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gac aaa cac tgg atc atg cgc tac acg ggg ccc atg aag ccc atc cac Asp Lys His Trp Ile Met Arg Tyr Thr Gly Pro Met Lys Pro Ile His 260 265 270	996

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Met Glu Phe Thr Asn Met Leu Gln Arg Lys Arg Leu Gln Thr Leu Met	
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Ser Val Asp Asp Ser Met Glu Thr Ile Tyr Asn Met Leu Val Glu Thr	
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His Ile Gly Gln Phe Gly Leu Val Lys Gly Lys Ser Met Pro Tyr Glu	
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Phe Asp Ile Arg Val Pro Phe Tyr Val Arg Gly Pro Asn Val Glu Ala	
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Gly Cys Leu Asn Pro His Ile Val Leu Asn Ile Asp Leu Ala Pro Thr	
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Ile Leu Asp Ile Ala Gly Leu Asp Ile Pro Ala Asp Met Asp Gly Lys	
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Ser Ile Leu Lys Leu Leu Asp Thr Glu Arg Pro Val Asn Arg Phe His	
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Leu Lys Lys Lys Met Arg Val Trp Arg Asp Ser Phe Leu Val Glu Arg	
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Gly Lys Leu Leu His Lys Arg Asp Asn Asp Lys Val Asp Ala Gln Glu	
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Val Glu Asp Ala Thr Gly Lys Leu Lys Leu His Lys Cys Lys Gly Pro	
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Met Arg Leu Gly Gly Ser Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr	
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Tyr Gly Gln Gly Ser Glu Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys	
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Leu Ser Leu Ala Gly Arg Arg Lys Lys Leu Phe Lys Lys Lys Tyr Lys	
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aaa gac cac aag ctg cac atc gac cac gag att gaa acc ctg cag aac Lys Asp His Lys Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn 625 630 635 640	2100
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 Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys
 785 790 795 800
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 Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly
 805 810 815
 gga agc tat gag caa tac agg cag ttt cag cgt cga aag tgg cca gaa 2676
 Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu
 820 825 830
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 Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly Trp
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 Glu Gly *
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 aca aca ttt gtc gtg tat gaa aac acc tac atg aat att aca ctc cct 96
 Thr Thr Phe Val Val Tyr Glu Asn Thr Tyr Met Asn Ile Thr Leu Pro
 20 25 30

cca cca ttc cag cat cct gac ctc agt cca ttg ctt aga tat agt ttt Pro Pro Phe Gln His Pro Asp Leu Ser Pro Leu Leu Arg Tyr Ser Phe 35 40 45	144
gaa acc atg gct ccc act ggt ttg agt tcc ttg acc gtg aat agt aca Glu Thr Met Ala Pro Thr Gly Leu Ser Ser Leu Thr Val Asn Ser Thr 50 55 60	192
gct gtg ccc aca aca cca gca gca ttt aag agc cta aac ttg cct ctt Ala Val Pro Thr Thr Pro Ala Ala Phe Lys Ser Leu Asn Leu Pro Leu 65 70 75 80	240
cag atc acc ctt tct gct ata atg ata ttc att ctg ttt gtg tct ttt Gln Ile Thr Leu Ser Ala Ile Met Ile Phe Ile Leu Phe Val Ser Phe 85 90 95	288
ctt ggg aac ttg gtt gtt tgc ctc atg gtt tac caa aaa gct gcc atg Leu Gly Asn Leu Val Val Cys Leu Met Val Tyr Gln Lys Ala Ala Met 100 105 110	336
agg tct gca att aac atc ctc ctt gcc agc cta gct ttt gca gac atg Arg Ser Ala Ile Asn Ile Leu Leu Ala Ser Leu Ala Phe Ala Asp Met 115 120 125	384
ttg ctt gca gtg ctg aac atg ccc ttt gcc ctg gta act att ctt act Leu Leu Ala Val Leu Asn Met Pro Phe Ala Leu Val Thr Ile Leu Thr 130 135 140	432
acc cga tgg att ttt ggg aaa ttc ttc tgt agg gta tct gct atg ttt Thr Arg Trp Ile Phe Gly Lys Phe Phe Cys Arg Val Ser Ala Met Phe 145 150 155 160	480
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ata gat agg ttc ctt att ata gtc cag agg cag gat aag cta aac cca Ile Asp Arg Phe Leu Ile Ile Val Gln Arg Gln Asp Lys Leu Asn Pro 180 185 190	576
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cga gct ccc cag tgt gtg ttt ggg tac aca acc aat cca ggc tac cag Arg Ala Pro Gln Cys Val Phe Gly Tyr Thr Thr Asn Pro Gly Tyr Gln 225 230 235 240	720
gct tat gtg att ttg att tct ctc att tct ttc ttc ata ccc ttc ctg Ala Tyr Val Ile Leu Ile Ser Leu Ile Ser Phe Phe Ile Pro Phe Leu 245 250 255	768
gta ata ctg tac tca ttt atg ggc ata ctc aac acc ctt cgg cac aat Val Ile Leu Tyr Ser Phe Met Gly Ile Leu Asn Thr Leu Arg His Asn 260 265 270	816
gcc ttg agg atc cat agc tac cct gaa ggt ata tgc ctc agc cag gcc Ala Leu Arg Ile His Ser Tyr Pro Glu Gly Ile Cys Leu Ser Gln Ala 275 280 285	864

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Ser Lys Leu Gly Leu Met Ser Leu Gln Arg Pro Phe Gln Met Ser Ile
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gac atg ggc ttt aaa aca cgt gcc ttc acc act att ttg att ctc ttt      960
Asp Met Gly Phe Lys Thr Arg Ala Phe Thr Thr Ile Leu Ile Leu Phe
      305                      310                      315                      320

gct gtc ttc att gtc tgc tgg gcc cca ttc acc act tac agc ctt gtg      1008
Ala Val Phe Ile Val Cys Trp Ala Pro Phe Thr Thr Tyr Ser Leu Val
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gca aca ttc agt aag cac ttt tac tat cag cac aac ttt ttt gag att      1056
Ala Thr Phe Ser Lys His Phe Tyr Tyr Gln His Asn Phe Phe Glu Ile
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agc acc tgg cta ctg tgg ctc tgc tac ctc aag tct gca ttg aat ccg      1104
Ser Thr Trp Leu Leu Trp Leu Cys Tyr Leu Lys Ser Ala Leu Asn Pro
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ctg atc tac tac tgg agg att aag aaa ttc cat gat gct tgc ctg gac      1152
Leu Ile Tyr Tyr Trp Arg Ile Lys Lys Phe His Asp Ala Cys Leu Asp
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Met Met Pro Lys Ser Phe Lys Phe Leu Pro Gln Leu Pro Gly His Thr
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aag cga cgg ata cgt cct agt gct gtc tat gtg tgt ggg gaa cat cgg      1248
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Ser Leu Val Leu Ala Phe Leu Gly Val Cys Leu Gly Ile Thr Leu Ala
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gtg gat aga agc aac ttt aag acc tgt gaa gag agt tct ttc tgc aag      144
Val Asp Arg Ser Asn Phe Lys Thr Cys Glu Glu Ser Ser Phe Cys Lys
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cga cag aga agc ata cgg cca ggc ctc tct cca tac cga gcc ttg ctg      192
Arg Gln Arg Ser Ile Arg Pro Gly Leu Ser Pro Tyr Arg Ala Leu Leu

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gag gtc acc aag gtg ttg ctg gtg cta gag ctt cag ggg ctt caa aag			288
Glu Val Thr Lys Val Leu Leu Val Leu Glu Leu Gln Gly Leu Gln Lys			
	85	90	95
aac atg act cgg ttc agg att gat gag ctg gag cct cgg cga ccc cga			336
Asn Met Thr Arg Phe Arg Ile Asp Glu Leu Glu Pro Arg Arg Pro Arg			
	100	105	110
tac cgt gta cca gat gtt ttg gtg gct gat cca cca ata gcc cgg ctt			384
Tyr Arg Val Pro Asp Val Leu Val Ala Asp Pro Pro Ile Ala Arg Leu			
	115	120	125
tct gtc tct ggt cgt gat gag aac agt gtg gag tta acc atg gct gag			432
Ser Val Ser Gly Arg Asp Glu Asn Ser Val Glu Leu Thr Met Ala Glu			
	130	135	140
gga ccc tac aag atc atc ttg aca gca cgg cca ttc cgc ctt gac cta			480
Gly Pro Tyr Lys Ile Ile Leu Thr Ala Arg Pro Phe Arg Leu Asp Leu			
	145	150	160
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Leu Glu Asp Arg Ser Leu Leu Leu Ser Val Asn Ala Arg Gly Leu Leu			
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gag ttt gag cat cag agg gcc cct agg gtc tcg caa gga tca aaa gac			576
Glu Phe Glu His Gln Arg Ala Pro Arg Val Ser Gln Gly Ser Lys Asp			
	180	185	190
cca gct gag ggc gat ggg gcc cag cct gag gaa aca ccc agg gat ggc			624
Pro Ala Glu Gly Asp Gly Ala Gln Pro Glu Glu Thr Pro Arg Asp Gly			
	195	200	205
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Asp Lys Pro Glu Glu Thr Gln Gly Lys Ala Glu Lys Asp Glu Pro Gly			
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Ala Trp Glu Glu Thr Phe Lys Thr His Ser Asp Ser Lys Pro Tyr Gly			
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Pro Met Ser Val Gly Leu Asp Phe Ser Leu Pro Gly Met Glu His Val			
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tat ggg atc cct gag cat gca gac aac ctg agg ctg aag gtc act gag			816
Tyr Gly Ile Pro Glu His Ala Asp Asn Leu Arg Leu Lys Val Thr Glu			
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ggt ggg gag cca tat cgc ctc tac aat ttg gat gtg ttc cag tat gag			864
Gly Gly Glu Pro Tyr Arg Leu Tyr Asn Leu Asp Val Phe Gln Tyr Glu			
	275	280	285
ctg tac aac cca atg gcc ttg tat ggg tct gtg cct gtg ctc ctg gca			912
Leu Tyr Asn Pro Met Ala Leu Tyr Gly Ser Val Pro Val Leu Leu Ala			
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His Asn Pro His Arg Asp Leu Gly Ile Phe Trp Leu Asn Ala Ala Glu			

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Thr Trp Val Asp	Ile Ser Ser Asn Thr	Ala Gly Lys Thr	Leu Phe Gly	
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Val Arg Trp Met	Ser Glu Thr Gly Ile	Ile Asp Val Phe	Leu Leu Leu	
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Thr Gln Ala Leu	Pro Pro Leu Phe	Ser Leu Gly Tyr	His Gln Ser Arg	
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Trp Asn Tyr Arg	Asp Glu Ala Asp	Val Leu Glu Val	Asp Gln Gly Phe	
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Ala Asp Gly Lys	Arg Tyr Phe Thr	Trp Asp Pro Ser	Arg Phe Pro Gln	
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ccc cgc acc atg	ctt gag cgc ttg	gct tct aag agg	cgg aag ctg gtg	1392
Pro Arg Thr Met	Leu Glu Arg Leu	Ala Ser Lys Arg	Arg Lys Leu Val	
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Ala Ile Val Asp	Pro His Ile Lys	Val Asp Ser Gly	Tyr Arg Val His	
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gag gag ctg cgg	aac ctg ggg ctg	tat gtt aaa acc	cgg gat ggc tct	1488
Glu Glu Leu Arg	Asn Leu Gly Leu	Tyr Val Lys Thr	Arg Asp Gly Ser	
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Asp Tyr Glu Gly	Trp Cys Trp Pro	Gly Ser Ala Gly	Tyr Pro Asp Phe	
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Thr Asn Pro Thr	Met Arg Ala Trp	Trp Ala Asn Met	Phe Ser Tyr Asp	
	515	520	525	
aat tat gag ggc	tca gct ccc aac	ctc ttt gtc tgg	aat gac atg aac	1632
Asn Tyr Glu Gly	Ser Ala Pro Asn	Leu Phe Val Trp	Asn Asp Met Asn	
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gaa cca tct gtg	ttc aat ggt cct	gag gtc acc atg	ctc aag gat gcc	1680
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Gln His Tyr Gly	Gly Trp Glu His	Arg Asp Val His	Asn Ile Tyr Gly	

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Trp	Arg	Lys	Ala	Phe	Gly	Glu	Lys	Thr	Ile	Val	Pro	Trp	Lys	Ser	Phe	
190					195					200					205	
cga	cag	gct	cta	cat	gaa	gtg	cat	ccc	atc	agt	tct	ggg	ctg	gag	gcc	1393
Arg	Gln	Ala	Leu	His	Glu	Val	His	Pro	Ile	Ser	Ser	Gly	Leu	Glu	Ala	
				210					215					220		
atg	gct	ctg	aaa	tcc	act	att	gat	ctg	acc	tgc	aat	gat	tat	att	tcg	1441
Met	Ala	Leu	Lys	Ser	Thr	Ile	Asp	Leu	Thr	Cys	Asn	Asp	Tyr	Ile	Ser	
			225					230					235			
gtt	ttt	gaa	ttt	gac	atc	ttt	acc	cga	ctc	ttt	cag	ccc	tgg	tcc	tct	1489
Val	Phe	Glu	Phe	Asp	Ile	Phe	Thr	Arg	Leu	Phe	Gln	Pro	Trp	Ser	Ser	
		240					245					250				
ttg	ctc	agg	aat	tgg	aac	agc	ctt	gct	gta	act	cat	cct	ggc	tac	atg	1537
Leu	Leu	Arg	Asn	Trp	Asn	Ser	Leu	Ala	Val	Thr	His	Pro	Gly	Tyr	Met	
		255				260					265					
gct	ttt	ttg	acg	tat	gac	gaa	gtg	aaa	gct	cgg	ctc	cag	aaa	ttc	att	1585
Ala	Phe	Leu	Thr	Tyr	Asp	Glu	Val	Lys	Ala	Arg	Leu	Gln	Lys	Phe	Ile	
270					275					280					285	
cac	aaa	cct	ggc	agt	tat	atc	ttc	cgg	ctg	agc	tgt	act	cgt	ctg	ggt	1633
His	Lys	Pro	Gly	Ser	Tyr	Ile	Phe	Arg	Leu	Ser	Cys	Thr	Arg	Leu	Gly	
				290					295					300		
cag	tgg	gct	att	ggg	tat	gtt	act	gct	gat	ggg	aac	att	ctc	cag	aca	1681
Gln	Trp	Ala	Ile	Gly	Tyr	Val	Thr	Ala	Asp	Gly	Asn	Ile	Leu	Gln	Thr	
		305						310					315			
atc	cct	cac	aat	aaa	cct	ctc	ttc	caa	gca	ctg	att	gat	ggc	ttc	agg	1729
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cac ctc atg tgc aca tcc tgt ctt aca tcc tgg cag gaa tca gaa ggt His Leu Met Cys Thr Ser Cys Leu Thr Ser Trp Gln Glu Ser Glu Gly 400 405 410			1969
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gtg gta gat ccg ttt gat cct aga ggg agt ggc agc ctg ttg agg caa Val Val Asp Pro Phe Asp Pro Arg Gly Ser Gly Ser Leu Leu Arg Gln 430 435 440 445			2065
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cga gct gat gat act ctc ttc atg atg aag gaa ttg gct ggt gcc aag Arg Ala Asp Asp Thr Leu Phe Met Met Lys Glu Leu Ala Gly Ala Lys 465 470 475			2161
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ccc ccg gtg cca cca cga ctt gac ctt ctg ccg cag cga gta tgt gtt Pro Pro Val Pro Pro Arg Leu Asp Leu Leu Pro Gln Arg Val Cys Val 495 500 505			2257
ccc tca agt gct tct gct ctt gga act gct tct aag gct gct tct ggc Pro Ser Ser Ala Ser Ala Leu Gly Thr Ala Ser Lys Ala Ala Ser Gly 510 515 520 525			2305
tcc ctt cat aaa gac aaa cca ttg cca gta cct ccc aca ctt cga gat Ser Leu His Lys Asp Lys Pro Leu Pro Val Pro Pro Thr Leu Arg Asp 530 535 540			2353
ctt cca cca cca ccg cct cca gac cgg cca tat tct gtt gga gca gaa Leu Pro Pro Pro Pro Pro Pro Asp Arg Pro Tyr Ser Val Gly Ala Glu 545 550 555			2401
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Trp Leu Pro Arg Pro Ile Pro Lys Val Pro Val Ser Ala Pro Ser Ser			
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Ser Asp Pro Trp Thr Gly Arg Glu Leu Thr Asn Arg His Ser Leu Pro			
	610	615	620
ttt tca ttg ccc tca caa atg gag ccc aga cca gat gtg cct agg ctc			2641
Phe Ser Leu Pro Ser Gln Met Glu Pro Arg Pro Asp Val Pro Arg Leu			
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gga agc acg ttc agt ctg gat acc tcc atg agt atg aat agc agc cca			2689
Gly Ser Thr Phe Ser Leu Asp Thr Ser Met Ser Met Asn Ser Ser Pro			
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Leu Val Gly Pro Glu Cys Asp His Pro Lys Ile Lys Pro Ser Ser Ser			
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gcc aat gcc att tat tct ctg gct gcc aga cct ctt cct gtg cca aaa			2785
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ctg cca cct ggg gag caa tgt gag ggt gaa gag gac aca gag tac atg			2833
Leu Pro Pro Gly Glu Gln Cys Glu Gly Glu Glu Asp Thr Glu Tyr Met			
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Thr Pro Ser Ser Arg Pro Leu Arg Pro Leu Asp Thr Ser Gln Ser Ser			
	705	710	715
cga gca tgt gat tgc gac cag cag att gat agc tgt acg tat gaa gca			2929
Arg Ala Cys Asp Cys Asp Gln Gln Ile Asp Ser Cys Thr Tyr Glu Ala			
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Met Tyr Asn Ile Gln Ser Gln Ala Pro Ser Ile Thr Glu Ser Ser Thr			
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Phe Gly Glu Gly Asn Leu Ala Ala Ala His Ala Asn Thr Gly Pro Glu			
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gag tca gaa aat gag gat gat ggg tat gat gtc cca aag cca cct gtg			3073
Glu Ser Glu Asn Glu Asp Asp Gly Tyr Asp Val Pro Lys Pro Pro Val			
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ccg gcc gtg ctg gcc cgc cga act ctc tca gat atc tct aat gcc agc			3121
Pro Ala Val Leu Ala Arg Arg Thr Leu Ser Asp Ile Ser Asn Ala Ser			
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Ser Ser Phe Gly Trp Leu Ser Leu Asp Gly Asp Pro Thr Thr Asn Val			
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Thr Glu Gly Ser Gln Val Pro Glu Arg Pro Pro Lys Pro Phe Pro Arg			
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Arg Ile Asn Ser Glu Arg Lys Ala Gly Ser Cys Gln Gln Gly Ser Gly			

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cct gcc gcc tct gct gcc acc gcc tca cct cag ctc tcc agt gag atc				3313
Pro Ala Ala Ser	Ala Ala Thr Ala Ser	Pro Gln Leu Ser Ser	Glu Ile	
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Glu Asn Leu Met	Ser Gln Gly Tyr Ser Tyr	Gln Asp Ile Gln Lys	Ala	
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Leu Val Ile Ala Gln Asn Asn Ile Glu Met Ala Lys Asn Ile Leu Arg				
	880	885	890	
gaa ttt gtt tcc att tct tct cct gcc cat gta gct acc tag cacacca				3458
Glu Phe Val Ser Ile Ser Ser Pro Ala His Val Ala Thr *				
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gaagggcagg agttcctttg gtgacttcac agtgaagtct tgccctctct gtgggatatc				3578
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Met Asp Gly Ala Met Gly Pro Arg Gly Leu Leu	
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Met Cys Met Tyr Leu Val Ser Leu Leu Ile Leu Gln Ala Met Pro Ala	
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ctg ggc tcg gct aca ggc agg tcc aag agc agc gag aag cga cag gct	206
Leu Gly Ser Ala Thr Gly Arg Ser Lys Ser Ser Glu Lys Arg Gln Ala	
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gtg gac acc gct gtc gat ggc gtg ttc atc cgg agt ttg aaa gtc aac	254
Val Asp Thr Ala Val Asp Gly Val Phe Ile Arg Ser Leu Lys Val Asn	
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tgc aaa gtc acc tct cgc ttc gcc cac tat gtt gtc acc agc caa gtg	302
Cys Lys Val Thr Ser Arg Phe Ala His Tyr Val Val Thr Ser Gln Val	
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gtc aac act gcc aat gaa gcc agg gaa gtg gcc ttc gac ctg gaa atc	350
Val Asn Thr Ala Asn Glu Ala Arg Glu Val Ala Phe Asp Leu Glu Ile	
80 85 90	

ccc aac aca ggc ttc atc agt gac ttt gcc gtt aca gca gat gga aac	398
Pro Asn Thr Gly Phe Ile Ser Asp Phe Ala Val Thr Ala Asp Gly Asn	
95 100 105	
gca ttt atc gga gac ata aag gac aag gtg act gca tgg aag cag tac	446
Ala Phe Ile Gly Asp Ile Lys Asp Lys Val Thr Ala Trp Lys Gln Tyr	
110 115 120	
cgg aaa gca gct atc tca gga gag aat gcc ggc ctt gtc agg gcc tcg	494
Arg Lys Ala Ala Ile Ser Gly Glu Asn Ala Gly Leu Val Arg Ala Ser	
125 130 135	
ggg aga act atg gag caa ttc atc atc cac ctc acc gtc aat ccc cag	542
Gly Arg Thr Met Glu Gln Phe Ile Ile His Leu Thr Val Asn Pro Gln	
140 145 150 155	
agc aag gtc acg ttt cag ctg act tat gag gaa gtg ctg aag aga aac	590
Ser Lys Val Thr Phe Gln Leu Thr Tyr Glu Glu Val Leu Lys Arg Asn	
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cat atg cag tat gaa att gtc atc aaa gtc aag ccc aag cag ctg gtg	638
His Met Gln Tyr Glu Ile Val Ile Lys Val Lys Pro Lys Gln Leu Val	
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cat cat ttt gag att gat gtg gac atc ttc gag ccc cag ggg atc agc	686
His His Phe Glu Ile Asp Val Asp Ile Phe Glu Pro Gln Gly Ile Ser	
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Lys Leu Asp Ala Gln Ala Ser Phe Leu Pro Lys Glu Leu Ala Ala Gln	
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Thr Ile Lys Lys Ser Phe Ser Gly Lys Lys Gly His Val Leu Phe Arg	
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Pro Thr Val Ser Gln Gln Gln Ser Cys Pro Thr Cys Ser Thr Ser Leu	
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Leu Asn Gly His Phe Lys Val Thr Tyr Asp Val Ser Arg Asp Lys Ile	
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Cys Asp Leu Leu Val Ala Asn Asn His Phe Ala His Phe Phe Ala Pro	
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Gln Asn Leu Thr Asn Met Asn Lys Asn Val Val Phe Val Ile Asp Ile	
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Ser Gly Ser Met Arg Gly Gln Lys Val Lys Gln Thr Lys Glu Ala Leu	
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Leu Lys Ile Leu Gly Asp Ile His Pro Gly Asp Tyr Phe Asp Leu Val	
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Leu Phe Gly Thr Arg Val Gln Ser Trp Lys Gly Ser Leu Val Gln Ala	
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tct gag gcc aac cta caa gca gct caa gac ttt gtg cgg ggc ttt tcc Ser Glu Ala Asn Leu Gln Ala Ala Gln Asp Phe Val Arg Gly Phe Ser 350 355 360	1166
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tca ata ctc atc atg ttg aca gat ggc gat ccc aca gag ggg gtg acg Ser Ile Leu Ile Met Leu Thr Asp Gly Asp Pro Thr Glu Gly Val Thr 400 405 410	1310
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tgc cta gtg gat gag gag gag atg aag aaa ctg ctc cga gag cgt ggc Cys Leu Val Asp Glu Glu Glu Met Lys Lys Leu Leu Arg Glu Arg Gly 540 545 550 555	1742
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acg gtc acc agg ggt ttg caa aaa gac tac agc aag gac ccg tgg cat Thr Val Thr Arg Gly Leu Gln Lys Asp Tyr Ser Lys Asp Pro Trp His 830 835 840	2606
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 860 865 870

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 agtccgcagg g atg aac ctc gag ttg ctg gag tcc ttt ggg cag aac tat 170
 Met Asn Leu Glu Leu Leu Glu Ser Phe Gly Gln Asn Tyr
 1 5 10
 cca gag gaa gct gat gga act ttg gat tgt atc agc atg gct ttg act 218
 Pro Glu Glu Ala Asp Gly Thr Leu Asp Cys Ile Ser Met Ala Leu Thr
 15 20 25
 tgc acc ttt aac agg tgg ggc aca ctg ctt gca gtt ggc tgt aat gat 266
 Cys Thr Phe Asn Arg Trp Gly Thr Leu Leu Ala Val Gly Cys Asn Asp
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 Gly Arg Ile Val Ile Trp Asp Phe Leu Thr Arg Gly Ile Ala Lys Ile
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 aaa ttt agt gca cac atc cat cca gtg tgt tct tta tgc tgg agc cga 362
 Lys Phe Ser Ala His Ile His Pro Val Cys Ser Leu Cys Trp Ser Arg
 65 70 75
 gat ggt cat aaa ctc gtg agt gct tcc act gat aac ata gtg tca cag 410
 Asp Gly His Lys Leu Val Ser Ala Ser Thr Asp Asn Ile Val Ser Gln
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 tgg gat gtt ctt tca ggc gac tgt gac cag agg ttt cga ttc cct tca 458
 Trp Asp Val Leu Ser Gly Asp Cys Asp Gln Arg Phe Arg Phe Pro Ser
 95 100 105
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 Pro Ile Leu Lys Val Gln Tyr His Pro Arg Asp Gln Asn Lys Val Leu
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 Val Cys Pro Met Lys Ser Ala Pro Val Met Leu Thr Leu Ser Asp Ser
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Lys His Val Val Leu Pro Val Asp Asp Asp Ser Asp Leu Asn Val Val	
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Phe Arg Val Thr Thr Gly Thr Ser Asn Thr Thr Ala Ile Lys Ser Ile	
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Glu Phe Ala Arg Lys Gly Ser Cys Phe Leu Ile Asn Thr Ala Asp Arg	
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Asn Leu Val Lys Ile Leu His Gly Thr Arg Gly Glu Leu Leu Leu Asp	
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Val Ala Trp His Pro Val Arg Pro Ile Ile Ala Ser Ile Ser Ser Gly	
305 310 315	
gtg gta tct atc tgg gca cag aat caa gta gaa aac tgg agt gca ttt	1130
Val Val Ser Ile Trp Ala Gln Asn Gln Val Glu Asn Trp Ser Ala Phe	
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Ala Pro Asp Phe Lys Glu Leu Asp Glu Asn Val Glu Tyr Glu Glu Arg	
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Glu Ser Gly Phe Asp Ile Glu Asp Glu Asp Lys Ser Glu Pro Glu Gln	
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Thr Gly Ala Asp Ala Ala Glu Asp Glu Glu Val Asp Val Thr Ser Val	
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Asp Pro Ile Ala Ala Phe Cys Ser Ser Asp Glu Glu Leu Glu Asp Ser	
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ctgaaaagga gggaacaatt gttgtagcag gtctaaaagt tcagggtccag ccccggtttc 180
tctggattct gtgcttctcc atg gag gaa act caa gga gaa ctg aca agt 230
Met Glu Glu Thr Gln Gly Glu Leu Thr Ser
1 5 10
tct tgt ggt tct aaa acc atg gcc aat gta tct ttg gca ttt agg gat 278
Ser Cys Gly Ser Lys Thr Met Ala Asn Val Ser Leu Ala Phe Arg Asp
15 20 25
gtg tcc ata gac ctc tcc caa gag gag tgg gag tgc ctg gac gct gtg 326
Val Ser Ile Asp Leu Ser Gln Glu Glu Trp Glu Cys Leu Asp Ala Val
30 35 40
cag agg gac ttg tac aag gat gtg atg ttg gag aac tac agc aac ctg 374
Gln Arg Asp Leu Tyr Lys Asp Val Met Leu Glu Asn Tyr Ser Asn Leu
45 50 55
gtc tca ctg gat ttg gaa tac aag tat att acc aag aat ttg ctt tca 422
Val Ser Leu Asp Leu Glu Tyr Lys Tyr Ile Thr Lys Asn Leu Leu Ser
60 65 70

gaa aag aat gtt tgc aaa atc tat tta tct caa ttg cag aca ggg gaa	470
Glu Lys Asn Val Cys Lys Ile Tyr Leu Ser Gln Leu Gln Thr Gly Glu	
75 80 85 90	
aaa agt aaa aac acc atc cat gag gac acc att ttc aga aat ggt ttg	518
Lys Ser Lys Asn Thr Ile His Glu Asp Thr Ile Phe Arg Asn Gly Leu	
95 100 105	
cag tgt aaa cat gaa ttt gag aga caa gag aga cat cag atg gga tgc	566
Gln Cys Lys His Glu Phe Glu Arg Gln Glu Arg His Gln Met Gly Cys	
110 115 120	
gtt agt caa atg cta atc caa aaa caa ata tct cat cct cta cat cca	614
Val Ser Gln Met Leu Ile Gln Lys Gln Ile Ser His Pro Leu His Pro	
125 130 135	
aaa att cat gct aga gag aaa tca tat gaa tgt aag gaa tgt aga aag	662
Lys Ile His Ala Arg Glu Lys Ser Tyr Glu Cys Lys Glu Cys Arg Lys	
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gcc ttt aga caa cag tca tac ctt att caa cat ctg aga att cac act	710
Ala Phe Arg Gln Gln Ser Tyr Leu Ile Gln His Leu Arg Ile His Thr	
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Gly Glu Arg Pro Tyr Lys Cys Met Glu Cys Gly Lys Ala Phe Cys Arg	
175 180 185	
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Val Gly Asp Leu Arg Val His His Thr Ile His Ala Gly Glu Arg Pro	
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tat gaa tgt aaa gaa tgt ggg aag gcc ttt aga ctt cat tat cac ctt	854
Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Arg Leu His Tyr His Leu	
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act gaa cat cag aga ata cat tct ggt gtg aaa ccc tac gag tgt aag	902
Thr Glu His Gln Arg Ile His Ser Gly Val Lys Pro Tyr Glu Cys Lys	
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Glu Cys Gly Lys Ala Phe Ser Arg Val Arg Asp Leu Arg Val His Gln	
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Thr Ile His Ala Gly Glu Arg Pro Tyr Glu Cys Lys Glu Cys Gly Lys	
255 260 265	
gcc ttt aga ctt cat tat caa cta act gaa cat caa aga att cat act	1046
Ala Phe Arg Leu His Tyr Gln Leu Thr Glu His Gln Arg Ile His Thr	
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Gly Glu Arg Pro Tyr Glu Cys Lys Val Cys Gly Lys Thr Phe Arg Val	
285 290 295	
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Gln Arg His Ile Ser Gln His Gln Lys Ile His Thr Gly Val Lys Pro	
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Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser His Gly Ser Tyr Leu	
315 320 325 330	

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Val Gln His Gln Lys Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys	
335 340 345	
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Glu Cys Gly Lys Ser Phe Ser Phe His Ala Glu Leu Ala Arg His Arg	
350 355 360	
aga att cat act ggt gag aaa ccc tat gaa tgt aga gaa tgt gga aaa	1334
Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Arg Glu Cys Gly Lys	
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Ala Phe Arg Leu Gln Thr Glu Leu Thr Arg His His Arg Thr His Thr	
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Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ile Cys	
395 400 405 410	
ggg tat caa ctt act tta cat ctg aga act cac acc ggt gag att ccc	1478
Gly Tyr Gln Leu Thr Leu His Leu Arg Thr His Thr Gly Glu Ile Pro	
415 420 425	
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Tyr Glu Cys Lys Glu Cys Gly Lys Thr Phe Ser Ser Arg Tyr His Leu	
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Thr Gln His Tyr Arg Ile His Thr Gly Glu Lys Pro Tyr Ile Cys Asn	
445 450 455	
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Glu Cys Gly Lys Ala Phe Arg Leu Gln Gly Glu Leu Thr Arg His His	
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Arg Ile His Thr Cys Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys	
475 480 485 490	
gct ttt att cat agc aat caa ttt att tca cac cag cga att cac acc	1718
Ala Phe Ile His Ser Asn Gln Phe Ile Ser His Gln Arg Ile His Thr	
495 500 505	
agt gag agc acc tac ata tgt aaa gaa tgt ggg aag att ttt agt cgt	1766
Ser Glu Ser Thr Tyr Ile Cys Lys Glu Cys Gly Lys Ile Phe Ser Arg	
510 515 520	
cgc tat aat ctt act caa cat ttt aaa att cat act ggt gaa aaa ccc	1814
Arg Tyr Asn Leu Thr Gln His Phe Lys Ile His Thr Gly Glu Lys Pro	
525 530 535	
tac ata tgt aat gaa tgt ggg aaa gcc ttt cga ttt caa aca gaa ctt	1862
Tyr Ile Cys Asn Glu Cys Gly Lys Ala Phe Arg Phe Gln Thr Glu Leu	
540 545 550	
act cag cat cac aga att cat act ggt gaa aaa ccc tat aaa tgt aca	1910
Thr Gln His His Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Thr	
555 560 565 570	
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Glu Cys Gly Lys Ala Phe Ile Arg Ser Thr His Leu Thr Gln His His	
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Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Thr Glu Cys Gly Lys
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Thr Phe Ser Arg His Tyr His Leu Thr Gln His His Arg Gly His Thr
          605                      610                      615

ggt gag aag ccc tac ata tgt aat gaa tgt ggg aat gct ttt att tgc      2102
Gly Glu Lys Pro Tyr Ile Cys Asn Glu Cys Gly Asn Ala Phe Ile Cys
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agt tat cga ctt aca tta cat caa aga att cac act ggt gag ctt cca      2150
Ser Tyr Arg Leu Thr Leu His Gln Arg Ile His Thr Gly Glu Leu Pro
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tat gaa tgt aag gaa tgt gga aag acc ttt agt cgt cgg tat cat ctt      2198
Tyr Glu Cys Lys Glu Cys Gly Lys Thr Phe Ser Arg Arg Tyr His Leu
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Thr Gln His Phe Arg Leu His Thr Gly Glu Lys Pro Tyr Ser Cys Lys
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Glu Cys Gly Asn Ala Phe Arg Leu Gln Ala Glu Leu Thr Arg His His
          685                      690                      695

ata gtt cac acg ggt gag aaa ccc tat aaa tgt aaa gaa tgt ggg aaa      2342
Ile Val His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys
          700                      705                      710

gcc ttc agt gtt aat tca gaa ctt act cga cat cac aga att cat act      2390
Ala Phe Ser Val Asn Ser Glu Leu Thr Arg His His Arg Ile His Thr
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ggt gaa aaa ccc tat caa tgt aaa gaa tgt gga aaa gcc ttt att cgt      2438
Gly Glu Lys Pro Tyr Gln Cys Lys Glu Cys Gly Lys Ala Phe Ile Arg
          735                      740                      745

agt gat caa ctt act tta cat cag aga aat cat att agt gag gaa gtc      2486
Ser Asp Gln Leu Thr Leu His Gln Arg Asn His Ile Ser Glu Glu Val
          750                      755                      760

cta tgc ata atg taa agagaatacgt atggccttta gaaaatgccc ttttagcagag      2541
Leu Cys Ile Met *
          765

aatttgtaat ttaagaaatt ttctgtttgt tacggaacat gtgggaatcc cttttacttc      2601

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gagaagcact cacaggtgga gaggaattcc ctgtggtctg gtgatgatgt caagaaatca 180

gacggaggct cagacagcgg cataaaa atg gag cca ggt tcc aag tgg agg 231
Met Glu Pro Gly Ser Lys Trp Arg
1 5

cgg aat cct tct gat gtg tct gac gag tcc gac aaa agc acg tcg ggc 279
Arg Asn Pro Ser Asp Val Ser Asp Glu Ser Asp Lys Ser Thr Ser Gly
10 15 20

aag aag aat cct gtc atc tcc cag aca ggc tca tgg cgg cga ggc atg 327
Lys Lys Asn Pro Val Ile Ser Gln Thr Gly Ser Trp Arg Arg Gly Met
25 30 35 40

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Thr Ala Gln Val Gly Ile Thr Met Pro Arg Thr Lys Ala Ser Ala Pro
45 50 55

gca ggc gca ctg aag acc cca gga act ggt aag agg ccg ggg ctg tct 423
Ala Gly Ala Leu Lys Thr Pro Gly Thr Gly Lys Arg Pro Gly Leu Ser
60 65 70

tgg ccc tgg ggc acc aac gcc agc agc tcc tcc gca gtt agc aag gat 471
Trp Pro Trp Gly Thr Asn Ala Ser Ser Ser Ser Ala Val Ser Lys Asp
75 80 85

ggc ctg ggc ttt cag tct gtc agc agc ctc cac acc agc tgt gag tcc 519
Gly Leu Gly Phe Gln Ser Val Ser Ser Leu His Thr Ser Cys Glu Ser
90 95 100

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Ile Asp Ile Ser Leu Ser Ser Gly Gly Val Pro Ser His Asn Ser Ser
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Thr Gly Leu Ile Ala Ser Ser Lys Asp Asp Ser Leu Thr Pro Phe Val
125 130 135

aga act aac agt gtg aag acc aca ctg tca gaa agg ttg gtg ctg tgc 663
Arg Thr Asn Ser Val Lys Thr Thr Leu Ser Glu Arg Leu Val Leu Cys
140 145 150

ctc tgg ctg cct ttc tca gaa aga cac cct tcc aaa aat aaa aag att 711
Leu Trp Leu Pro Phe Ser Glu Arg His Pro Ser Lys Asn Lys Lys Ile
155 160 165

agc tta gga atc cca aat gtc gaa tag ccttt gcctgtaaga tttctcctcg 763
Ser Leu Gly Ile Pro Asn Val Glu *
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tgccgaatct cttgctcgag ggccaaat 791

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aat ggg caa ccc cag gcc agc aaa att tgc cag ttc aaa ttg gtc ctg      219
Asn Gly Gln Pro Gln Ala Ser Lys Ile Cys Gln Phe Lys Leu Val Leu
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ctg gga gaa tct gca gtg gga aag tca agc ctg gta tta cgt ttt gtc      267
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Lys Gly Gln Phe His Glu Tyr Gln Glu Ser Thr Ile Gly Ala Ala Phe
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ctc acc cag tcc gtt tgt cta gat gac aca aca gtg aag ttt gag atc      363
Leu Thr Gln Ser Val Cys Leu Asp Asp Thr Thr Val Lys Phe Glu Ile
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tgg gac aca gct ggg cag gag cga tat cac agc tta gcc ccc atg tac      411
Trp Asp Thr Ala Gly Gln Glu Arg Tyr His Ser Leu Ala Pro Met Tyr
 75                               80                               85

tac agg ggt gcc caa gct gca atc gtg gtt tac gac att act aat cag      459
Tyr Arg Gly Ala Gln Ala Ala Ile Val Val Tyr Asp Ile Thr Asn Gln
 90                               95                               100                               105

gaa acc ttt gcc cga gca aag aca tgg gtg aag gaa cta cag cga cag      507
Glu Thr Phe Ala Arg Ala Lys Thr Trp Val Lys Glu Leu Gln Arg Gln
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gcc agt cct agc atc gtt att gcc ctg gca ggg aac aaa gct gac ctg      555
Ala Ser Pro Ser Ile Val Ile Ala Leu Ala Gly Asn Lys Ala Asp Leu
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gcc aac aaa cgt atg gtg gag tat gaa gag gcc cag gca tat gca gat      603
Ala Asn Lys Arg Met Val Glu Tyr Glu Glu Ala Gln Ala Tyr Ala Asp
                               140                               145                               150

gac aac agc tta ttg ttc atg gag act tca gcc aag aca gct atg aac      651
Asp Asn Ser Leu Leu Phe Met Glu Thr Ser Ala Lys Thr Ala Met Asn
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gtg aat gat ctc ttc ctg gca ata gct aag aag ttg cca aag agt gaa      699
Val Asn Asp Leu Phe Leu Ala Ile Ala Lys Lys Leu Pro Lys Ser Glu
170                               175                               180                               185

ccc cag aat ctg gga ggt gca gca ggc cga agc cgg ggt gtg gat ctc      747
Pro Gln Asn Leu Gly Gly Ala Ala Gly Arg Ser Arg Gly Val Asp Leu
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cat gaa cag tcc cag cag aac aag agc cag tgt tgt agc aac tga ggg      795

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Pro Glu Ala Gly Val Cys Ser Leu Ala Leu Pro Ser Asp Leu Gln Leu
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Arg Val Gln Glu Gln Val Arg Ala Arg Leu Leu Gln Leu Gly Gln Gln
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Arg Gly Thr Ser Arg Gly Gln Tyr His Thr Leu Gln Ala Gly Phe Ser
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Ser Arg Ser Gln Gly Leu Ser Gly Asp Lys Thr Ser Gly Phe Arg Pro

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agc gcc ttt ggg gcc gct ggg tac ggg ggt gcc cag ccc acc cct ccc Ser Ala Phe Gly Ala Ala Gly Tyr Gly Gly Ala Gln Pro Thr Pro Pro 145 150 155			542
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Glu Asn Ala Val Cys Val Leu Arg Asn Leu Ser Tyr Arg Leu Tyr Asp			
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Ile Glu Lys Leu Pro Gly Ser Val Gly Glu Lys Ser Pro Pro Ala Glu				
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Pro Glu Ile Thr Tyr Arg Leu Arg Asn Asp Ser Asn Phe Ala Leu Gln						
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Ser Lys Lys Lys Asp Gln Glu Glu Asn Lys Gly Ala Thr Ser Trp Pro						
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 Met Ser Leu Glu Gly Pro Ala Gln Pro Gln Tyr
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 Ser Pro Val Gln Ala Thr Phe Glu Val Leu Asp Phe Ile Thr His Leu
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 Tyr Ala Gly Ala Asp Val His Arg His Leu Asp Val Arg Ile Leu Leu
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 Val Gln Asn Leu Ala His Pro Pro Glu Val Val Leu Thr Asp Phe Gln
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 Thr Leu Asp Gly Ser Gln Tyr Asn Pro Val Lys Gln Gln Leu Val Arg
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 Tyr Ala Thr Ser Cys Tyr Ser Cys Cys Pro Arg Leu Ala Ser Val Leu
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 Leu Tyr Ser Asp Tyr Gly Ile Gly Glu Val Pro Val Glu Pro Leu Asp
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 Pro Lys Gln Pro Val Arg Gly Tyr Tyr Arg Gly Ala Val Gly Gly Thr
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 Phe Asp Arg Leu His Asn Ala His Lys Val Leu Leu Ser Val Ala Cys
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act gct gtc atc cca gag act gag gct gta aga cgc att gtg gag agg      1453
Thr Ala Val Ile Pro Glu Thr Glu Ala Val Arg Arg Ile Val Glu Arg
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gat ggc ctc agt gaa gcc gcg gct caa agc cgg ctg cag agc cag atg      1501
Asp Gly Leu Ser Glu Ala Ala Ala Gln Ser Arg Leu Gln Ser Gln Met
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Trp Glu Pro His Ile Thr Gln Arg Gln Val Glu Lys Ala Trp Ala Leu
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Leu Gln Lys Arg Ile Pro Lys Thr His Gln Ala Leu Asp *
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Glu Asp Gln Arg Cys Leu Ser Gln Ser Leu Pro Leu Pro Val Ser Ala
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Glu Gly Pro Ala Ala Gln Thr Thr Ala Glu Pro Ser Arg Ser Phe Ser

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795	800					805					810					
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Lys His Gly Ser Gly Leu Asp Leu Phe Ala Phe Ile Asp Arg His Pro				
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1310

1315

1320

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Cys Pro Arg Arg Thr Ile Trp Leu Ser Arg Ser Gln Ser Asp Ile Phe				
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2524

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His	Asn	Asn	Arg	Phe	Met	Ile	Cys	Cys	Asp	Arg	Cys	Glu	Glu	Trp	Phe		
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Arg	Asn	Gly	Glu	Asp	Tyr	Ile	Cys	Pro	Asn	Cys	Thr	Ile	Leu	Gln	Val		
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Gln	Asp	Glu	Thr	His	Ser	Glu	Thr	Ala	Asp	Gln	Gln	Glu	Ala	Lys	Trp		
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Pro Gly Val Glu Phe Met Gly Leu His Gln Glu Asn Asn Ala Val Thr				
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cag atc cac ctc ctg ccc ggc cag tgc cag ctg gtc acc ctg ctg gat				409
Gln Ile His Leu Leu Pro Gly Gln Cys Gln Leu Val Thr Leu Leu Asp				
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Asp Asn Ser Leu His Leu Trp Ser Leu Lys Val Lys Gly Gly Ala Ser				
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2531

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Arg Ser Gly Arg Ala Pro Pro Glu Ala Glu Asp Pro Asp Arg Gly Gln
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Pro Cys Asn Ser Cys Arg Glu Gln Cys Pro Gly Phe Leu Leu His Gly
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Trp Arg Lys Ile Cys Gln His Cys Lys Cys Pro Arg Glu Glu His Ala
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Val His Ala Val Pro Val Asp Leu Glu Arg Ile Met Cys Arg Leu Ile
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Ser Asp Phe Gln Arg His Ser Ile Ser Asp Asp Asp Ser Gly Cys Ala
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Tyr Gln Phe Phe Ser Cys Leu Pro Glu Asp Lys Val Pro Tyr Val Asn
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Ser Pro Gly Glu Lys Tyr Arg Ile Lys Gln Leu Leu His Gln Leu Pro
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cca cac gac agt gag gca cag tac tgc aca gca ctg gaa gag gag gaa      543
Pro His Asp Ser Glu Ala Gln Tyr Cys Thr Ala Leu Glu Glu Glu Glu
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Lys Lys Glu Leu Arg Ala Phe Ser Gln Gln Arg Lys Arg Glu Asn Leu
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Gly Arg Gly Ile Val Arg Ile Phe Pro Val Thr Ile Thr Gly Ala Ile
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Gln	His	Trp	His	Ala	Ser	Asp	Arg	Cys	Phe	Cys	Cys	Ser	Arg	Cys	Gly	
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Lys	Gly	Thr	Ser	Thr	Glu	Leu	Ala	Pro	Ala	Thr	Gly	Pro	Glu	Glu	Pro	
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Leu	Ser	Ala	Pro	Pro	Ala	Gln	Arg	Arg	Arg	Pro	Arg	Ser	Pro	Pro	Pro		
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Leu	Gln	Pro	Arg	Thr	Ser	Lys	Leu	Trp	Gly	Asp	Val	Thr	Glu	Ile	Lys														
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Ser	Pro	Ile	Leu	Ser	Gly	Pro	Lys	Ala	Asn	Val	Ile	Ser	Glu	Leu	Asn														

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tct atc cta cag caa atg aac cga gag aaa ttg gca aag ccg ggg gaa				3175
Ser Ile Leu Gln Gln Met Asn Arg Glu Lys Leu Ala Lys Pro Gly Glu				
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Gly Leu Asp Ser Pro Met Gly Ala Lys Ser Ala Ser Leu Ala Pro Arg				
1045	1050	1055		
agc ccg gag atc atg agc acc atc tca ggt aca cgg agc acg acg gtc				3271
Ser Pro Glu Ile Met Ser Thr Ile Ser Gly Thr Arg Ser Thr Thr Val				
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Thr Phe Thr Val Arg Pro Gly Thr Ser Gln Pro Ile Thr Leu Gln Ser				
1080	1085	1090		
cgg ccc ccc gac tat gaa agc agg acc tca gga aca aga cgt gcc cca				3367
Arg Pro Pro Asp Tyr Glu Ser Arg Thr Ser Gly Thr Arg Arg Ala Pro				
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Ser Pro Val Val Ser Pro Thr Glu Met Asn Lys Glu Thr Leu Pro Ala				
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ccc ctg tct gct gcc acc gcc tct cct tct ccc gct ctc tca gat gtc				3463
Pro Leu Ser Ala Ala Thr Ala Ser Pro Ser Pro Ala Leu Ser Asp Val				
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Ile Ser Asn Lys Pro Phe Thr Thr Lys Pro Val His Leu Trp Thr Lys				
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Pro Asp Val Ala Asp Trp Leu Glu Ser Leu Asn Leu Gly Glu His Lys				
1190	1195	1200		
gag gcc ttc atg gac aat gag atc gat ggc agt cac tta cca aac ctg				3703
Glu Ala Phe Met Asp Asn Glu Ile Asp Gly Ser His Leu Pro Asn Leu				
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Gln Lys Glu Asp Leu Ile Asp Leu Gly Val Thr Arg Val Gly His Arg				
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<210> 919
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acttcagact accctgaacg ttgattactc tttatactga aataggcatt attcagtgga 180
agagagggaa gaccaaattg atagactgga ctttattcga aaccag atg aac ctt 235
Met Asn Leu

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tta aca ctg gat gtt aag aaa aaa atc aag gag gtt acc gag gag gtg	283
Leu Thr Leu Asp Val Lys Lys Lys Ile Lys Glu Val Thr Glu Glu Val	
5 10 15	
gca aac aaa gtt tca tgt gca atg aca gat gaa att tgt cga ctg tct	331
Ala Asn Lys Val Ser Cys Ala Met Thr Asp Glu Ile Cys Arg Leu Ser	
20 25 30 35	
gtt ttg gtt gat gaa ttt tgt tca gag ttt cat cct aat cca gat gta	379
Val Leu Val Asp Glu Phe Cys Ser Glu Phe His Pro Asn Pro Asp Val	
40 45 50	
tta aaa ata tat aaa agt gaa tta aat aag cac ata gag gat ggt atg	427
Leu Lys Ile Tyr Lys Ser Glu Leu Asn Lys His Ile Glu Asp Gly Met	
55 60 65	
gga aga aat ttg gct gat cga tgc acc gat gaa gta aac gcc tta gtg	475
Gly Arg Asn Leu Ala Asp Arg Cys Thr Asp Glu Val Asn Ala Leu Val	
70 75 80	
ctt cag acc cag caa gaa att att gaa aat ttg aag cca tta ctt cca	523
Leu Gln Thr Gln Gln Glu Ile Ile Glu Asn Leu Lys Pro Leu Leu Pro	
85 90 95	
gct ggt ata cag gat aaa cta cat aca ctg atc cct tgc aag aaa ttt	571
Ala Gly Ile Gln Asp Lys Leu His Thr Leu Ile Pro Cys Lys Lys Phe	
100 105 110 115	
gat ctc agt tat aat cta aat tac cac aag tta tgt tca gat ttt caa	619
Asp Leu Ser Tyr Asn Leu Asn Tyr His Lys Leu Cys Ser Asp Phe Gln	
120 125 130	
gag gat att gta ttt cgt ttt tcc ctg ggc tgg tct tcc ctt gta cat	667
Glu Asp Ile Val Phe Arg Phe Ser Leu Gly Trp Ser Ser Leu Val His	
135 140 145	
cga ttt ttg ggc cct aga aat gct caa agg gtg ctc cta gga tta tca	715
Arg Phe Leu Gly Pro Arg Asn Ala Gln Arg Val Leu Leu Gly Leu Ser	
150 155 160	
gag cct atc ttt cag ctc cct aga tct tta gct tct act ccc act gct	763
Glu Pro Ile Phe Gln Leu Pro Arg Ser Leu Ala Ser Thr Pro Thr Ala	
165 170 175	
cct acc act cca gca acg cca gat aat gca tca cag gaa gaa ctc atg	811
Pro Thr Thr Pro Ala Thr Pro Asp Asn Ala Ser Gln Glu Glu Leu Met	
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att aca tta gta aca gga ttg gcg tcc gtt aca tct aga act tct atg	859
Ile Thr Leu Val Thr Gly Leu Ala Ser Val Thr Ser Arg Thr Ser Met	
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Gly Ile Ile Ile Val Gly Gly Val Ile Trp Lys Thr Ile Gly Trp Lys	
215 220 225	
ctc cta tct gtt tca tta act atg tat gga gct ttg tat ctt tat gaa	955
Leu Leu Ser Val Ser Leu Thr Met Tyr Gly Ala Leu Tyr Leu Tyr Glu	
230 235 240	
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Arg Leu Ser Trp Thr Thr His Ala Lys Glu Arg Ala Phe Lys Gln Gln	
245 250 255	

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Phe Val Asn Tyr Ala Thr Glu Lys Leu Arg Met Ile Val Ser Ser Thr
260                               265                               270                               275

agt gca aac tgc agt cac caa gta aaa caa caa ata gct acc act ttt      1099
Ser Ala Asn Cys Ser His Gln Val Lys Gln Gln Ile Ala Thr Thr Phe
                               280                               285                               290

gct cgc ctg tgc caa caa gtt gat att act caa aaa cag ctg gaa gaa      1147
Ala Arg Leu Cys Gln Gln Val Asp Ile Thr Gln Lys Gln Leu Glu Glu
                               295                               300                               305

gaa att gct aga tta ccc aaa gaa ata gat cag ttg gag aaa ata caa      1195
Glu Ile Ala Arg Leu Pro Lys Glu Ile Asp Gln Leu Glu Lys Ile Gln
                               310                               315                               320

aac aat tca aag ctc tta aga aat aaa gct gtt caa ctt gaa aat gag      1243
Asn Asn Ser Lys Leu Leu Arg Asn Lys Ala Val Gln Leu Glu Asn Glu
                               325                               330                               335

ctg gag aat ttt act aag cag ttt cta cct tca agc aat gaa gaa tcc      1291
Leu Glu Asn Phe Thr Lys Gln Phe Leu Pro Ser Ser Asn Glu Glu Ser
340                               345                               350                               355

taacaataga gattgctttg gtgaccatga taggaggaaa cgaaacttgt aagattggaa      1351

cagttgttat ttttatgaaa ttactttaaa tatgaattgt actaactgta cctaaatagc      1411

aaagccctgt gtagattctg gtaatgatct gtctcagggt atgtgtatTTT ttgaagagtg      1471

ttatgtcctt agttttaatt ttgagtaaag aaaaggctaa aatcatgaat tagttacaag      1531

caacagtacc aacttatgtg acccctgagg ggtggggctg tgagctctta atttgTTTTT      1591

gattctgaaa aactctgctt cctggcatcc aggagttaga gattgagcct ttcactctct      1651

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tcacagtcac gttgccatca tggcagctat gtgaaacact aataaatgtg tttttacttt      1831

ttattcccgT taaaactgat gtaaaacagg ataaaggctt gttatagtca cttataagta      1891

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aaaatagcca aagataggag acgtctgaat tttgaatgat aaacagtgat gttttaaaaa      2071

ggctgttggt cttcaggagg catttgcta ggatattgct ggattatacc ccattggagg      2131

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<222> (748) .. (1482)

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aatcgtatct tctttgtttc agcaaaggaa gttcttagtg ctagaaagca aaaagcacag    480
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Lys Lys Lys Ile Lys Glu Val Thr Glu Glu Val Pro Asn Lys Val Ser
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Cys Ala Met Thr Asp Glu Ile Cys Arg Leu Ser Val Leu Val Asp Glu
      25           30           35           40

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Phe Cys Ser Glu Phe His Pro Asn Pro Asp Val Leu Lys Ile Tyr Lys
      45           50           55

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Ser Leu Pro Arg Ser Leu Ala Ser Thr Pro Thr Ala Pro Thr Thr Pro
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gca acg cca gat aat gca tca cag gaa gaa ctc atg att aca tta gta      1011
Ala Thr Pro Asp Asn Ala Ser Gln Glu Glu Leu Met Ile Thr Leu Val
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aca gga ttg gcg tcc gtt aca tct aga act tct atg ggc atc att att      1059
Thr Gly Leu Ala Ser Val Thr Ser Arg Thr Ser Met Gly Ile Ile Ile
      90           95           100

gtt gga gga gtg att tgg aaa act ata ggc tgg aaa ctc cta tct gtt      1107
Val Gly Gly Val Ile Trp Lys Thr Ile Gly Trp Lys Leu Leu Ser Val
      105           110           115           120

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Ser Leu Thr Met Tyr Gly Ala Leu Tyr Leu Tyr Glu Arg Leu Ser Trp

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gca act gaa aaa ctg agg atg att gtt agc tcc acg agt gca aac tgc				1251
Ala Thr Glu Lys Leu Arg Met Ile Val Ser Ser Thr Ser Ala Asn Cys				
	155	160	165	
agt cac caa gta aaa caa caa ata gct acc act ttt gct cgc ctg tgc				1299
Ser His Gln Val Lys Gln Gln Ile Ala Thr Thr Phe Ala Arg Leu Cys				
	170	175	180	
caa caa gtt gat att acc cac aaa cag ctg gaa gaa gaa att gct aga				1347
Gln Gln Val Asp Ile Thr His Lys Gln Leu Glu Glu Glu Ile Ala Arg				
	185	190	195	200
tta ccc aaa gaa ata gat cag ttg gag aaa atc caa aac aat tca aag				1395
Leu Pro Lys Glu Ile Asp Gln Leu Glu Lys Ile Gln Asn Asn Ser Lys				
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ctc tta aga aat aaa gct gtt caa ctt gaa aat gag ctg gag aat ttt				1443
Leu Leu Arg Asn Lys Ala Val Gln Leu Glu Asn Glu Leu Glu Asn Phe				
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act aag cag ttt cta cct tca agc aat gaa gaa tcc taa caatagagat				1492
Thr Lys Gln Phe Leu Pro Ser Ser Asn Glu Glu Ser *				
	235	240	245	
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cctgtatgta ctgctttaac tectggaaga	351
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Met Thr Asp Asp Lys Asp Val	
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Leu Arg Asp Val Trp Phe Gly Arg Ile Pro Thr Cys Phe Thr Leu Tyr	
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Gln Asp Glu Ile Thr Glu Arg Glu Ala Glu Pro Tyr Tyr Leu Leu Leu	
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cca aga gta agt tat ttg acg ttg gta act gac aaa gtg aaa aag cac	495
Pro Arg Val Ser Tyr Leu Thr Leu Val Thr Asp Lys Val Lys Lys His	
40 45 50 55	
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Phe Gln Lys Val Met Arg Gln Glu Asp Ile Ser Glu Ile Trp Phe Glu	
60 65 70	
tat gaa ggc aca cca ctg aaa tgg cat tat cca att ggt ttg cta ttt	591
Tyr Glu Gly Thr Pro Leu Lys Trp His Tyr Pro Ile Gly Leu Leu Phe	
75 80 85	
gat ctt ctt gca tca agt tca gct ctt cct tgg aac atc aca gta cat	639
Asp Leu Leu Ala Ser Ser Ser Ala Leu Pro Trp Asn Ile Thr Val His	
90 95 100	
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Phe Lys Ser Phe Pro Glu Lys Asp Leu Leu His Cys Pro Ser Lys Asp	
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gca att gaa gct cat ttt atg tca tgt atg aaa gaa gct gat gct tta	735
Ala Ile Glu Ala His Phe Met Ser Cys Met Lys Glu Ala Asp Ala Leu	
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aaa cat aaa agt caa gta atc aat gaa atg cag aaa aaa gat cac aag	783
Lys His Lys Ser Gln Val Ile Asn Glu Met Gln Lys Lys Asp His Lys	
140 145 150	
caa ctc tgg atg gga ttg caa aat gac aga ttt gac cag ttt tgg gcc	831
Gln Leu Trp Met Gly Leu Gln Asn Asp Arg Phe Asp Gln Phe Trp Ala	
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atc aat cgg aaa ctc atg gaa tat cct gca gaa gaa aat gga ttt cgt	879
Ile Asn Arg Lys Leu Met Glu Tyr Pro Ala Glu Glu Asn Gly Phe Arg	
170 175 180	
tat atc ccc ttt aga ata tat cag aca acg act gaa aga cct ttc att	927
Tyr Ile Pro Phe Arg Ile Tyr Gln Thr Thr Thr Glu Arg Pro Phe Ile	
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Gln Lys Leu Phe Arg Pro Val Ala Ala Asp Gly Gln Leu His Thr Leu	
200 205 210 215	

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Gly Asp Leu Leu Lys Glu Val Cys Pro Ser Ala Ile Asp Pro Glu Asp	
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Gly Glu Lys Lys Asn Gln Val Met Ile His Gly Ile Glu Pro Met Leu	
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Glu Thr Pro Leu Gln Trp Leu Ser Glu His Leu Ser Tyr Pro Asp Asn	
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Phe Leu His Ile Ser Ile Ile Pro Gln Pro Thr Asp *	
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<400> 922

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ccaggccccg cagtctcatt tgccgcttcc gacgcgtgac cccggcgcgc tagcgtccgg 300
gaccggtgac aggcgcgggg tgccccaagc agtccc atg tgt ccc ctc cct ctc 354
                               Met Cys Pro Leu Pro Leu
                               1                               5

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Ala Ala Ala Ala Val Ala Ala Pro Arg Ala Pro Leu Arg Leu Leu Asn
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aga ggg ctc gcc gcc gcc atg tct acc gcc cag tca ctc aaa tcc gtg 450
Arg Gly Leu Ala Ala Ala Met Ser Thr Ala Gln Ser Leu Lys Ser Val
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Asp Tyr Glu Val Phe Gly Arg Val Gln Gly Val Cys Phe Arg Met Tyr
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Thr Glu Asp Glu Ala Arg Lys Ile Gly Val Val Gly Trp Val Lys Asn

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gtc aat tcc atg aag tcc tgg ctg agc aag gtt gga agc cct agt tct				642
Val Asn Ser Met Lys Ser Trp Leu Ser Lys Val Gly Ser Pro Ser Ser				
	90	95	100	
cgc att gac cgc aca aac ttt tct aat gaa aaa acc atc tct aag ctt				690
Arg Ile Asp Arg Thr Asn Phe Ser Asn Glu Lys Thr Ile Ser Lys Leu				
	105	110	115	
gaa tac tct aat ttt agt att aga tac taa t agaagagaaa aattgtaaca				741
Glu Tyr Ser Asn Phe Ser Ile Arg Tyr *				
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ctgaagcctc agctcttgcc aaacagaccc gagaccc atg tca gcc cca ctg gat	235
	Met Ser Ala Pro Leu Asp
	1 5
gcc gcc ctc cac gcc ctt cag gag gag cag gcc aga ctc aag atg agg	283
Ala Ala Leu His Ala Leu Gln Glu Glu Gln Ala Arg Leu Lys Met Arg	
	10 15 20
ctg tgg gac ctg cag cag ctg aga aag gag ctc ggg gac tcc ccc aaa	331
Leu Trp Asp Leu Gln Gln Leu Arg Lys Glu Leu Gly Asp Ser Pro Lys	
	25 30 35
gac aag gtc cca ttt tca gtg ccc aag atc ccc ctg gta ttc cga gga	379
Asp Lys Val Pro Phe Ser Val Pro Lys Ile Pro Leu Val Phe Arg Gly	
	40 45 50

cac acc cag cag gac ccg gaa gtg cct aag tct tta gtt tcc aat ttg	427
His Thr Gln Gln Asp Pro Glu Val Pro Lys Ser Leu Val Ser Asn Leu	
55 60 65 70	
cgg atc cac tgc cct ctg ctt gcg ggc tct gct ctg atc acc ttt gat	475
Arg Ile His Cys Pro Leu Leu Ala Gly Ser Ala Leu Ile Thr Phe Asp	
75 80 85	
gac ccc aaa gtg gct gag cag gtg ctg caa caa aag gag cac acg atc	523
Asp Pro Lys Val Ala Glu Gln Val Leu Gln Gln Lys Glu His Thr Ile	
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aac atg gag gag tgc cgg ctg cgg gtg cag gtc cag ccc ttg gag ctg	571
Asn Met Glu Glu Cys Arg Leu Arg Val Gln Val Gln Pro Leu Glu Leu	
105 110 115	
ccc atg gtc acc acc atc cag gtg tcc agc cag ttg agt ggc cgg agg	619
Pro Met Val Thr Thr Ile Gln Val Ser Ser Gln Leu Ser Gly Arg Arg	
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Val Leu Val Thr Gly Phe Pro Ala Ser Leu Arg Leu Ser Glu Glu Glu	
135 140 145 150	
ctg ctg gac aag cta gag atc ttc ttt ggc aag act agg aac gga ggt	715
Leu Leu Asp Lys Leu Glu Ile Phe Phe Gly Lys Thr Arg Asn Gly Gly	
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Gly Asp Val Asp Val Arg Glu Leu Leu Pro Gly Ser Val Met Leu Gly	
170 175 180	
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Phe Ala Arg Asp Gly Val Ala Gln Arg Leu Cys Gln Ile Gly Gln Phe	
185 190 195	
aca gtg cca ctg ggt ggg cag caa gtc cct ctg aga gtc tct ccg tat	859
Thr Val Pro Leu Gly Gly Gln Gln Val Pro Leu Arg Val Ser Pro Tyr	
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Val Asn Gly Glu Ile Gln Lys Ala Glu Ile Arg Ser Gln Pro Val Pro	
215 220 225 230	
cgc tcg gta ctg gtg ctc aac att cct gat atc ttg gat ggc ccg gag	955
Arg Ser Val Leu Val Leu Asn Ile Pro Asp Ile Leu Asp Gly Pro Glu	
235 240 245	
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Leu His Asp Val Leu Glu Ile His Phe Gln Lys Pro Thr Arg Gly Gly	
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Gly Glu Val Glu Ala Leu Thr Val Val Pro Gln Gly Gln Gln Gly Leu	
265 270 275	
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Ala Val Phe Thr Ser Glu Ser Gly *	
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1246

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 Pro Gln Ala Leu Leu Ala Ile Phe Trp Leu Leu Leu Ser Trp Val Ser
 5 10 15 20

agt gaa gac aag gtg gta caa agc cct cta tct ctg gtt gtc cac gag 152
 Ser Glu Asp Lys Val Val Gln Ser Pro Leu Ser Leu Val Val His Glu
 25 30 35

gga gac acc gta act ctc aat tgc agt tat gaa gtg act aac ttt cga 200
 Gly Asp Thr Val Thr Leu Asn Cys Ser Tyr Glu Val Thr Asn Phe Arg
 40 45 50

agc cta cta tgg tac aag cag gaa aag aaa gct ccc aca ttt cta ttt 248
 Ser Leu Leu Trp Tyr Lys Gln Glu Lys Lys Ala Pro Thr Phe Leu Phe
 55 60 65

atg cta act tca agt gga att gaa aag aag tca gga aga cta agt agc 296
 Met Leu Thr Ser Ser Gly Ile Glu Lys Lys Ser Gly Arg Leu Ser Ser
 70 75 80

ata tta gat aag aaa gaa ctt tcc agc atc ctg aac atc aca gcc acc 344
 Ile Leu Asp Lys Lys Glu Leu Ser Ser Ile Leu Asn Ile Thr Ala Thr
 85 90 95 100

cag acc gga gac tcg gcc atc tac ctc tgt gct gtg gag gca cag tgc 392
 Gln Thr Gly Asp Ser Ala Ile Tyr Leu Cys Ala Val Glu Ala Gln Cys
 105 110 115

tcc cta gtc acc tgc agc ctg tac tca aat tct aca gct gag gct ctg 440
 Ser Leu Val Thr Cys Ser Leu Tyr Ser Asn Ser Thr Ala Glu Ala Leu
 120 125 130

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 Gln Leu *
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ggaaaagcag ttattggtca aaaaaaaaaa aaaa 530

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                               Met Leu Trp Ser Gly Cys Arg
                               1                               5

cgt ttc ggg gcg cgc ctc ggc tgc ctg ccc ggc ggt ctc cgg gtc ctc      162
Arg Phe Gly Ala Arg Leu Gly Cys Leu Pro Gly Gly Leu Arg Val Leu
          10                      15                      20

gtc cag acc ggc cac cgg agc ttg acc tcc tgc atc gac cct tcc atg      210
Val Gln Thr Gly His Arg Ser Leu Thr Ser Cys Ile Asp Pro Ser Met
          25                      30                      35

gga ctt aat gaa gag cag aaa gaa ttt caa aaa gtg gcc ttt gac ttt      258
Gly Leu Asn Glu Glu Gln Lys Glu Phe Gln Lys Val Ala Phe Asp Phe
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gct gcc cga gag atg gct cca aat atg gca gag tgg gac cag aag gag      306
Ala Ala Arg Glu Met Ala Pro Asn Met Ala Glu Trp Asp Gln Lys Glu
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ctg ttc cca gtg gat gtg atg cgg aag gca gcc cag cta ggc ttc gga      354
Leu Phe Pro Val Asp Val Met Arg Lys Ala Ala Gln Leu Gly Phe Gly
          75                      80                      85

ggg gtc tac ata caa aca gat gtg ggc ggg tct ggg ctg tca cgt ctt      402
Gly Val Tyr Ile Gln Thr Asp Val Gly Gly Ser Gly Leu Ser Arg Leu
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gat acc tct gtc att ttt gaa gcc ttg gct aca ggc tgc acc agc acc      450
Asp Thr Ser Val Ile Phe Glu Ala Leu Ala Thr Gly Cys Thr Ser Thr
          105                      110                      115

aca gcc tat ata agc atc cac aac atg tgt gcc tgg atg att gat agc      498
Thr Ala Tyr Ile Ser Ile His Asn Met Cys Ala Trp Met Ile Asp Ser
          120                      125                      130                      135

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Phe Gly Asn Glu Glu Gln Arg His Lys Phe Cys Pro Pro Leu Cys Thr
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atg gag aag ttt gct tcc tac tgc ctc act gaa cca gga agt ggg agt      594
Met Glu Lys Phe Ala Ser Tyr Cys Leu Thr Glu Pro Gly Ser Gly Ser
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gat gct gcc tct ctt ctg acc tcc gct aag aaa cag gga gat cat tac      642
Asp Ala Ala Ser Leu Leu Thr Ser Ala Lys Lys Gln Gly Asp His Tyr
          170                      175                      180

atc ctc aat ggc tcc aag gcc ttc atc agt ggt gct ggt gag tca gac      690
Ile Leu Asn Gly Ser Lys Ala Phe Ile Ser Gly Ala Gly Glu Ser Asp
          185                      190                      195

atc tat gtg gtc atg tgc cga aca gga gga cca ggc ccc aag ggc atc      738
Ile Tyr Val Val Met Cys Arg Thr Gly Gly Pro Gly Pro Lys Gly Ile
          200                      205                      210                      215

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Lys Glu Lys Lys Val Gly Trp Asn Ser Gln Pro Thr Arg Ala Val Ile	
235 240 245	
ttc gaa gac tgt gct gtc cct gtg gcc aac aga att ggg agc gag ggg	882
Phe Glu Asp Cys Ala Val Pro Val Ala Asn Arg Ile Gly Ser Glu Gly	
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Gln Gly Phe Leu Ile Ala Val Arg Gly Leu Asn Gly Gly Arg Ile Asn	
265 270 275	
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Ile Ala Ser Cys Ser Leu Gly Ala Ala His Ala Ser Val Ile Leu Thr	
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Ala Ala Arg Leu Met Val Arg Asn Ala Ala Val Ala Leu Gln Glu Glu	
330 335 340	
agg aag gat gca gtg gcc ttg tgc tcc atg gcc aag ctc ttt gct aca	1170
Arg Lys Asp Ala Val Ala Leu Cys Ser Met Ala Lys Leu Phe Ala Thr	
345 350 355	
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Asp Glu Cys Phe Ala Ile Cys Asn Gln Ala Leu Gln Met His Gly Gly	
360 365 370 375	
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Tyr Gly Tyr Leu Lys Asp Tyr Ala Val Gln Gln Tyr Val Arg Asp Ser	
380 385 390	
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Arg Val His Gln Ile Leu Glu Gly Ser Asn Glu Val Met Arg Ile Leu	
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Ile Ser Arg Ser Leu Leu Gln Glu *	
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 Met Ser Gln Pro Arg Thr Pro Glu Gln Ala
 1 5 10
 ctg gat aca ccg ggg gac tgc ccc cca ggc agg aga gac gag gac gct 218
 Leu Asp Thr Pro Gly Asp Cys Pro Pro Gly Arg Arg Asp Glu Asp Ala
 15 20 25
 ggg gag ggg atc cag tgc tcc caa cgc atg ctc agc ttc agt gac gcc 266
 Gly Glu Gly Ile Gln Cys Ser Gln Arg Met Leu Ser Phe Ser Asp Ala
 30 35 40
 ctg ctg tcc atc atc gcc acc gtc atg atc ctg cct gtg acc cac acg 314
 Leu Leu Ser Ile Ile Ala Thr Val Met Ile Leu Pro Val Thr His Thr
 45 50 55
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 Glu Ile Ser Pro Glu Gln Gln Phe Asp Arg Ser Val Gln Arg Leu Leu
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 Ala Thr Arg Ile Ala Val Tyr Leu Met Thr Phe Leu Ile Val Thr Val
 75 80 85 90
 gcc tgg gca gca cac aca agg ttg ttc caa gtt gtt ggg aaa aca gac 458
 Ala Trp Ala Ala His Thr Arg Leu Phe Gln Val Val Gly Lys Thr Asp
 95 100 105

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ctg cct tac acg ttt tcg tta atg gtg acc ttc cct gat gtg cct ctg      554
Leu Pro Tyr Thr Phe Ser Leu Met Val Thr Phe Pro Asp Val Pro Leu
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ggc atc ttc ttg ttc tgt gtg tgt gtg atc gcc att ggg gtc gtg cag      602
Gly Ile Phe Leu Phe Cys Val Cys Val Ile Ala Ile Gly Val Val Gln
      140                      145                      150

gca ctg att gtg ggg tac gca ttc cac ttc ccg cac ctg ctg agc ccg      650
Ala Leu Ile Val Gly Tyr Ala Phe His Phe Pro His Leu Leu Ser Pro
      155                      160                      165                      170

cag atc cag cgc tct gcc cac agg gct ctg tac cga cga cac gtc ctg      698
Gln Ile Gln Arg Ser Ala His Arg Ala Leu Tyr Arg Arg His Val Leu
      175                      180                      185

ggc atc gtc ctc caa ggc ccg gcc ctg tgc ttt gca gcg gcc atc ttc      746
Gly Ile Val Leu Gln Gly Pro Ala Leu Cys Phe Ala Ala Ala Ile Phe
      190                      195                      200

tct ctc ttc ttt gtc ccc ctg tct tac ctg ctg atg gtg act gtc atc      794
Ser Leu Phe Phe Val Pro Leu Ser Tyr Leu Leu Met Val Thr Val Ile
      205                      210                      215

ctc ctc ccc tat gtc agc aag gtc acc ggc tgg tgc aga gac agg ctc      842
Leu Leu Pro Tyr Val Ser Lys Val Thr Gly Trp Cys Arg Asp Arg Leu
      220                      225                      230

ctg ggc cac agg gag ccc tcg gct cac cca gtg gaa gtc ttc tcg ttt      890
Leu Gly His Arg Glu Pro Ser Ala His Pro Val Glu Val Phe Ser Phe
      235                      240                      245                      250

gac ctc cac gag cca ctc agc aag gag cgc gtg gaa gcc ttc agc gac      938
Asp Leu His Glu Pro Leu Ser Lys Glu Arg Val Glu Ala Phe Ser Asp
      255                      260                      265

gga gtc tac gcc atc gtg gcc acg ctt ctc atc ctg gac atc tgg tga      986
Gly Val Tyr Ala Ile Val Ala Thr Leu Leu Ile Leu Asp Ile Trp *
      270                      275                      280

ggaccccgcg tcacctgccc cagctatt      1014

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<210> 927
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 <212> DNA
 <213> Homo sapiens

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 <222> (1)...(1893)
 <223> n = a,t,c or g

<400> 927

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ggcaggtgca gaacagaaca ctttctcatg tccaggggtca gattacaaga gcactcaaga	120
ctttactgac gaaaactcag gaaatcctct atcacaaaga ggtttggcaa ctaaactaag	180
acattaaaag gaaaatacca gatgccactc tgcagggtgc aataactact acttactgga	240
tacattcaaa ccttcagaa tcaacagtta tcaggtaacc aacaagaa atg caa gcc	297
	Met Gln Ala
	1
gtc gac aat ctc acc tct gcg cct ggg aac acc agt ctg tgc acc aga	345
Val Asp Asn Leu Thr Ser Ala Pro Gly Asn Thr Ser Leu Cys Thr Arg	
5 10 15	
gac tac aaa atc acc cag gtc ctc ttc cca ctg ctc tac act gtc ctg	393
Asp Tyr Lys Ile Thr Gln Val Leu Phe Pro Leu Leu Tyr Thr Val Leu	
20 25 30 35	
ttt ttt gtt gga ctt atc aca aat ggc ctg gcg atg agg att ttc ttt	441
Phe Phe Val Gly Leu Ile Thr Asn Gly Leu Ala Met Arg Ile Phe Phe	
40 45 50	
caa atc cgg agt aaa tca aac ttt att att ttt ctt aag aac aca gtc	489
Gln Ile Arg Ser Lys Ser Asn Phe Ile Ile Phe Leu Lys Asn Thr Val	
55 60 65	
att tct gat ctt ctc atg att ctg act ttt cca ttc aaa att ctt agt	537
Ile Ser Asp Leu Leu Met Ile Leu Thr Phe Pro Phe Lys Ile Leu Ser	
70 75 80	
gat gcc aaa ctg gga aca gga cca ctg aga act ttt gtg tgt caa gtt	585
Asp Ala Lys Leu Gly Thr Gly Pro Leu Arg Thr Phe Val Cys Gln Val	
85 90 95	
acc tcc gtc ata ttt tat ttc aca atg tat atc agt att tca ttc ctg	633
Thr Ser Val Ile Phe Tyr Phe Thr Met Tyr Ile Ser Ile Ser Phe Leu	
100 105 110 115	
gga ctg ata act atc gat cgc tac cag aag acc acc agg cca ttt aaa	681
Gly Leu Ile Thr Ile Asp Arg Tyr Gln Lys Thr Thr Arg Pro Phe Lys	
120 125 130	
aca tcc aac ccc aaa aat ctc ttg ggg gct aag att ctc tct gtt gtc	729
Thr Ser Asn Pro Lys Asn Leu Leu Gly Ala Lys Ile Leu Ser Val Val	
135 140 145	
atc tgg gca ttc atg ttc tta ctc tct ttg cct aac atg att ctg acc	777
Ile Trp Ala Phe Met Phe Leu Leu Ser Leu Pro Asn Met Ile Leu Thr	
150 155 160	
aac agg cag ccg aga gac aag aat gtg aag aaa tgc tct ttc ctt aaa	825
Asn Arg Gln Pro Arg Asp Lys Asn Val Lys Lys Cys Ser Phe Leu Lys	
165 170 175	
tca gag ttc ggt cta gtc tgg cat gaa ata gta aat tac atc tgt caa	873
Ser Glu Phe Gly Leu Val Trp His Glu Ile Val Asn Tyr Ile Cys Gln	
180 185 190 195	
gtc att ttc tgg att aat ttc tta att gtt att gta tgt tat aca ctc	921
Val Ile Phe Trp Ile Asn Phe Leu Ile Val Ile Val Cys Tyr Thr Leu	
200 205 210	

att aca aaa gaa ctg tac cgg tca tac gta aga acg agg ggt gta ggt Ile Thr Lys Glu Leu Tyr Arg Ser Tyr Val Arg Thr Arg Gly Val Gly 215 220 225	969
aaa gtc ccc agg aaa aag gtg aac gtc aaa gtt ttc att atc att gct Lys Val Pro Arg Lys Lys Val Asn Val Lys Val Phe Ile Ile Ile Ala 230 235 240	1017
gta ttc ttt att tgt ttt gtt cct ttc cat ttt gcc cga att cct tac Val Phe Phe Ile Cys Phe Val Pro Phe His Phe Ala Arg Ile Pro Tyr 245 250 255	1065
acc ctg agc caa acc cgg gat gtc ttt gac tgc act gct gaa aat act Thr Leu Ser Gln Thr Arg Asp Val Phe Asp Cys Thr Ala Glu Asn Thr 260 265 270 275	1113
ctg ttc tat gtg aaa gag agc act ctg tgg tta act tcc tta aat gca Leu Phe Tyr Val Lys Glu Ser Thr Leu Trp Leu Thr Ser Leu Asn Ala 280 285 290	1161
tgc ctg gat ccg ttc atc tat ttt ttc ctt tgc aag tcc ttc aga aat Cys Leu Asp Pro Phe Ile Tyr Phe Phe Leu Cys Lys Ser Phe Arg Asn 295 300 305	1209
tcc ttg ata agt atg ctg aag tgc ccc aat tct gca aca tct ctg tcc Ser Leu Ile Ser Met Leu Lys Cys Pro Asn Ser Ala Thr Ser Leu Ser 310 315 320	1257
cag gac aat agg aaa aaa gaa cag gat ggt ggt gac cca aat gaa gag Gln Asp Asn Arg Lys Lys Glu Gln Asp Gly Gly Asp Pro Asn Glu Glu 325 330 335	1305
act cca atg taa aca aattaactaa ggaaatatatt caatctcttt gtgttcagaa Thr Pro Met * 340	1360
ctcgttaaag caaagcgcta agtaaaaata ttaactgacg aagaagcaac taagttaata	1420
ataatgactc taaagaaaca gaagattaca aaagcaattt tcatttacct ttccagtatg	1480
aaaagctatc ttaaaatata gaaaactaat cttaaactgta gctgtattag cagcaaaaca	1540
aacgacatcc aattgtcatg ctgcatgcaa aactacacag aattcatggt ttgcagagtt	1600
ttgccaaaat gagtaatcat ataatatatta ctgtaatttt taaaatacat tatcgttcac	1660
aattttattt ttccataatc cactaaggga agaacgatca attggatata atcttcttac	1720
caaaaaatga tagntaaaat gtatatataa tctagtcccc taaccaaata ncttgaccta	1780
ttgggatact taataaaaaa ttaaagtaag tgggataccc caaagaaata ataactattt	1840
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<222> (1) ... (627)

<223> n = a,t,c or g

<400> 928

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          Met Val His Leu Thr Pro Glu Glu Lys Ser Ala Val Thr
              1              5              10

gcc ctg tgg ggc aag gtg aac gtg gat gaa gtt ggt ggt gag gcc ctg      158
Ala Leu Trp Gly Lys Val Asn Val Asp Glu Val Gly Gly Glu Ala Leu
          15              20              25

ggc agg ctg ctg gtg gtc tac cct tgg acc cag agg ttc ttt gag tcc      206
Gly Arg Leu Leu Val Val Tyr Pro Trp Thr Gln Arg Phe Phe Glu Ser
          30              35              40              45

ttt ggg gat ctg tcc act cct gat gct gtt atg ggc aac cct aag gtg      254
Phe Gly Asp Leu Ser Thr Pro Asp Ala Val Met Gly Asn Pro Lys Val
              50              55              60

aag gct cat ggc aag aaa gtg ctc ggt gcc ttt agt gat ggc ctg gct      302
Lys Ala His Gly Lys Lys Val Leu Gly Ala Phe Ser Asp Gly Leu Ala
              65              70              75

cac ctg gac aac ctc aag ggc acc ttt gcc aca ctg agt gag ctg cac      350
His Leu Asp Asn Leu Lys Gly Thr Phe Ala Thr Leu Ser Glu Leu His
              80              85              90

tgt gac aag ctg cac gtg gat cct gag aac ttc agg ctc ctg ggc aac      398
Cys Asp Lys Leu His Val Asp Pro Glu Asn Phe Arg Leu Leu Gly Asn
              95              100              105

gtg ctg gtc tgt gtg ctg gcc cat cac ttt ggc aaa gaa ttc acc cca      446
Val Leu Val Cys Val Leu Ala His His Phe Gly Lys Glu Phe Thr Pro
110              115              120              125

cca gtt gca ggc ttg cct atc aga aag ttg gtg gct ggt tgt ggc taa      494
Pro Val Ala Gly Leu Pro Ile Arg Lys Leu Val Ala Gly Cys Gly *
              130              135              140

tgccctggcc cacaagtaat cacttaagcc tcgctttcct tgctgggtcca atttccaatt      554
aaaagggttcc tttggttccc taagtccaaa tacttaaachn ggggggatat tattgaaagg      614
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<210> 929

<211> 2402

<212> DNA

<213> Homo sapiens

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<222> (295) .. (1962)

<400> 929

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gcacctttga agtcacctgg accaaggaaa ggccttgccc tgaaggctgg tcaactgcag      180
aggtaaactc ccctctttga cttctggcca gggtttgtgc tgagctggct gcagccgctc      240
tcagcctcgc tccgggcacg tcgggcagcc tccggccctc ctgcctgcag gatc  atg      297
                                     Met
                                     1

ccc acc acc gtg gac gat gtc ctg gag cat gga ggg gag ttt cac ttt      345
Pro Thr Thr Val Asp Asp Val Leu Glu His Gly Gly Glu Phe His Phe
      5              10              15

ttc cag aag caa atg ttt ttc ctc ttg gct ctg ctc tcg gct acc ttc      393
Phe Gln Lys Gln Met Phe Phe Leu Leu Ala Leu Leu Ser Ala Thr Phe
      20              25              30

gcg ccc atc tac gtg ggc atc gtc ttc ctg ggc ttc acc cct gac cac      441
Ala Pro Ile Tyr Val Gly Ile Val Phe Leu Gly Phe Thr Pro Asp His
      35              40              45

cgc tgc cgg agc ccc gga gtg gcc gag ctg agt ctg cgc tgc ggc tgg      489
Arg Cys Arg Ser Pro Gly Val Ala Glu Leu Ser Leu Arg Cys Gly Trp
      50              55              60              65

agt cct gca gag gaa ctg aac tac acg gtg ccg ggc cca gga cct gcg      537
Ser Pro Ala Glu Glu Leu Asn Tyr Thr Val Pro Gly Pro Gly Pro Ala
      70              75              80

ggc gaa gcc tcc cca aga cag tgt agg cgc tac gag gtg gac tgg aac      585
Gly Glu Ala Ser Pro Arg Gln Cys Arg Arg Tyr Glu Val Asp Trp Asn
      85              90              95

cag agc acc ttt gac tgc gtg gac ccc ctg gcc agc ctg gac acc aac      633
Gln Ser Thr Phe Asp Cys Val Asp Pro Leu Ala Ser Leu Asp Thr Asn
      100              105              110

agg agc cgc ctg cca ctg ggc ccc tgc cgg gac ggc tgg gtg tac gag      681
Arg Ser Arg Leu Pro Leu Gly Pro Cys Arg Asp Gly Trp Val Tyr Glu
      115              120              125

acg cct ggc tcg tcc atc gtc acc gag ttt aac ctg gta tgt gcc aac      729
Thr Pro Gly Ser Ser Ile Val Thr Glu Phe Asn Leu Val Cys Ala Asn
      130              135              140              145

tcc tgg atg ttg gac cta ttc cag tca tca gtg aat gta gga ttc ttt      777
Ser Trp Met Leu Asp Leu Phe Gln Ser Ser Val Asn Val Gly Phe Phe
      150              155              160

att ggc tct atg agt atc ggc tac ata gca gac agg ttt ggc cgt aag      825
Ile Gly Ser Met Ser Ile Gly Tyr Ile Ala Asp Arg Phe Gly Arg Lys
      165              170              175

ctc tgc ctc cta act aca gtc ctc ata aat gct gca gct gga gtt ctc      873
Leu Cys Leu Leu Thr Thr Val Leu Ile Asn Ala Ala Ala Gly Val Leu
      180              185              190

atg gcc att tcc cca acc tat acg tgg atg tta att ttt cgc tta atc      921
Met Ala Ile Ser Pro Thr Tyr Thr Trp Met Leu Ile Phe Arg Leu Ile
      195              200              205

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caa gga ctg gtc agc aaa gca ggc tgg tta ata ggc tac atc ctg att	969
Gln Gly Leu Val Ser Lys Ala Gly Trp Leu Ile Gly Tyr Ile Leu Ile	
210 215 220 225	
aca gaa ttt gtt ggg cgg aga tat cgg aga aca gtg ggg att ttt tac	1017
Thr Glu Phe Val Gly Arg Arg Tyr Arg Arg Thr Val Gly Ile Phe Tyr	
230 235 240	
caa gtt gcc tat aca gtt ggg ctc ctg gtg cta gct ggg gtg gct tac	1065
Gln Val Ala Tyr Thr Val Gly Leu Leu Val Leu Ala Gly Val Ala Tyr	
245 250 255	
gca ctt cct cac tgg agg tgg ttg cag ttc aca gtt gct ctg ccc aac	1113
Ala Leu Pro His Trp Arg Trp Leu Gln Phe Thr Val Ala Leu Pro Asn	
260 265 270	
ttc ttc ttc ttg ctc tat tac tgg tgc ata cct gag tct ccc agg tgg	1161
Phe Phe Phe Leu Leu Tyr Tyr Trp Cys Ile Pro Glu Ser Pro Arg Trp	
275 280 285	
ctg atc tcc cag aat aag aat gct gaa gcc atg aga atc att aag cac	1209
Leu Ile Ser Gln Asn Lys Asn Ala Glu Ala Met Arg Ile Ile Lys His	
290 295 300 305	
atc gca aag aaa aat gga aaa tct cta ccc gcc tcc ctt cag cgc ctg	1257
Ile Ala Lys Lys Asn Gly Lys Ser Leu Pro Ala Ser Leu Gln Arg Leu	
310 315 320	
aga ctt gaa gag gaa act ggc aag aaa ttg aac cct tca ttt ctt gac	1305
Arg Leu Glu Glu Glu Thr Gly Lys Lys Leu Asn Pro Ser Phe Leu Asp	
325 330 335	
ttg gtc aga act cct cag ata agg aaa cat act atg ata ttg atg tac	1353
Leu Val Arg Thr Pro Gln Ile Arg Lys His Thr Met Ile Leu Met Tyr	
340 345 350	
aac tgg ttc acg agc tct gtg ctc tac cag ggc ctc atc atg cac atg	1401
Asn Trp Phe Thr Ser Ser Val Leu Tyr Gln Gly Leu Ile Met His Met	
355 360 365	
ggc ctt gca ggt gac aat atc tac ctg gat ttc ttc tac tct gcc ctg	1449
Gly Leu Ala Gly Asp Asn Ile Tyr Leu Asp Phe Phe Tyr Ser Ala Leu	
370 375 380 385	
gtt gaa ttc cca gct gcc ttc atg atc atc ctc acc atc gac cgc atc	1497
Val Glu Phe Pro Ala Ala Phe Met Ile Ile Leu Thr Ile Asp Arg Ile	
390 395 400	
gga cgc cgt tac cct tgg gct gca tca aat atg gtt gca ggg gca gcc	1545
Gly Arg Arg Tyr Pro Trp Ala Ala Ser Asn Met Val Ala Gly Ala Ala	
405 410 415	
tgt ctg gcc tca gtt ttt ata cct ggt gat cta caa tgg cta aaa att	1593
Cys Leu Ala Ser Val Phe Ile Pro Gly Asp Leu Gln Trp Leu Lys Ile	
420 425 430	
att atc tca tgc ttg gga aga atg ggg atc aca atg gcc tat gag ata	1641
Ile Ile Ser Cys Leu Gly Arg Met Gly Ile Thr Met Ala Tyr Glu Ile	
435 440 445	
gtc tgc ctg gtc aat gct gag ctg tac ccc aca ttc att agg aat ctt	1689
Val Cys Leu Val Asn Ala Glu Leu Tyr Pro Thr Phe Ile Arg Asn Leu	
450 455 460 465	

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ggc gtc cac atc tgt tcc tca atg tgt gac att ggt ggc atc atc acg      1737
Gly Val His Ile Cys Ser Ser Met Cys Asp Ile Gly Gly Ile Ile Thr
                     470                     475                     480

cca ttc ctg gtc tac cgg ctc act aac atc tgg ctt gag ctc ccg ctg      1785
Pro Phe Leu Val Tyr Arg Leu Thr Asn Ile Trp Leu Glu Leu Pro Leu
                     485                     490                     495

atg gtt ttc ggc gta ctt ggc ttg gtt gct gga ggt ctg gtg ctg ttg      1833
Met Val Phe Gly Val Leu Gly Leu Val Ala Gly Gly Leu Val Leu Leu
                     500                     505                     510

ctt cca gaa act aaa ggg aaa gct ttg cct gag acc atc gag gaa gcc      1881
Leu Pro Glu Thr Lys Gly Lys Ala Leu Pro Glu Thr Ile Glu Glu Ala
                     515                     520                     525

gaa aat atg caa aga cca aga aaa aat aaa gaa aag atg att tac ctc      1929
Glu Asn Met Gln Arg Pro Arg Lys Asn Lys Glu Lys Met Ile Tyr Leu
530                     535                     540                     545

caa gtt cag aaa cta gac att cca ttg aac taa gaagagag accgttgctg      1980
Gln Val Gln Lys Leu Asp Ile Pro Leu Asn *
                     550                     555

ctgtcatgac ctagctttga tggcagcaag accaaaagta gaaatccctg cactcatcac      2040

aaagcccata caactcaacc aaacttacct ctgagcccta tcaacctagg tctacagcca      2100

gtggagtcta ttgtacactg tggaaaaata cccatggggac cagatcctgc caaattcttc      2160

cagctcactt tattctcagc attcctagga cattggacat tggttttctg gagggttttt      2220

tttccatctt tgtatttttt taaatttgat tcttttcttt gcaatgctat ctaaccagaa      2280

tacatagggg aactgtgggc taggcaaaca aaatagaaaa aagtgtgaaa aacagtaaag      2340

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aa                                                                 2402

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Met Leu Gly Val Asn Pro Arg Phe Asp Ser Ala Ser Ser Ser
1                     5                     10

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tac tat ttg gac atg cac agc ctc ccc cat gtc atc aac cca gtg gag	158
Tyr Tyr Leu Asp Met His Ser Leu Pro His Val Ile Asn Pro Val Glu	
15 20 25 30	
tcc cgg ctg gga tcc agt gct gcc tcc ttg tac cct gtg ctc aac ttt	206
Ser Arg Leu Gly Ser Ser Ala Ala Ser Leu Tyr Pro Val Leu Asn Phe	
35 40 45	
cta ctc tac gtg cct gag ctt gca cac tca ccg ctg tac att cag gac	254
Leu Leu Tyr Val Pro Glu Leu Ala His Ser Pro Leu Tyr Ile Gln Asp	
50 55 60	
aag gat ggc gct cca gtg gcc acc aat gcc ttc cat agt ccc cgc tgg	302
Lys Asp Gly Ala Pro Val Ala Thr Asn Ala Phe His Ser Pro Arg Trp	
65 70 75	
ggt ggc att atg gta tat aat gtt gac tcc aaa acc tat aat gcc tca	350
Gly Gly Ile Met Val Tyr Asn Val Asp Ser Lys Thr Tyr Asn Ala Ser	
80 85 90	
gtg ctg cca gtg aga gtc gag gtg gac atg gtg cga gtg atg gag gtg	398
Val Leu Pro Val Arg Val Glu Val Asp Met Val Arg Val Met Glu Val	
95 100 105 110	
ttc ctg gca cag ttg cgg ttg ctc ttt ggg att gct cag ccc cag ctg	446
Phe Leu Ala Gln Leu Arg Leu Leu Phe Gly Ile Ala Gln Pro Gln Leu	
115 120 125	
cct cca aaa tgc ctg ctt tca ggg cct acg agt gaa ggg cta atg acc	494
Pro Pro Lys Cys Leu Leu Ser Gly Pro Thr Ser Glu Gly Leu Met Thr	
130 135 140	
tgg gag cta gac cgg ctg ctc tgg gct cgg tca gtg gag aac ctg gcc	542
Trp Glu Leu Asp Arg Leu Leu Trp Ala Arg Ser Val Glu Asn Leu Ala	
145 150 155	
aca gcc acc acc acc ctt acc tcc ctg gcg cag ctt ctg ggc aag atc	590
Thr Ala Thr Thr Leu Thr Ser Leu Ala Gln Leu Leu Gly Lys Ile	
160 165 170	
agc aac att gtc att aag gac gac gtg gca tct gag gtg tac aag gct	638
Ser Asn Ile Val Ile Lys Asp Asp Val Ala Ser Glu Val Tyr Lys Ala	
175 180 185 190	
gta gct gcc gtc cag aag tcg gca gaa gag ttg gcg tct ggg cac ctg	686
Val Ala Ala Val Gln Lys Ser Ala Glu Glu Leu Ala Ser Gly His Leu	
195 200 205	
gca tct gcc ttt gtc gcc agc cag gaa gct gtg aca tcc tct gag ctt	734
Ala Ser Ala Phe Val Ala Ser Gln Glu Ala Val Thr Ser Ser Glu Leu	
210 215 220	
gcc ttc ttt gac ccg tca ctc ctc cac ctc ctt tat ttc cct gat gac	782
Ala Phe Phe Asp Pro Ser Leu Leu His Leu Leu Tyr Phe Pro Asp Asp	
225 230 235	
cag aag ttt gcc atc tac atc cca ctc ttc ctg cct atg gct gtg ccc	830
Gln Lys Phe Ala Ile Tyr Ile Pro Leu Phe Leu Pro Met Ala Val Pro	
240 245 250	
atc ctc ctg tcc ctg gtc aag atc ttc ctg gag acc cgc aag tcc tgg	878
Ile Leu Leu Ser Leu Val Lys Ile Phe Leu Glu Thr Arg Lys Ser Trp	
255 260 265 270	

aga aag cct gag aag aca gac tgt gta cgt gat atc tga acactcctca 927
 Arg Lys Pro Glu Lys Thr Asp Cys Val Arg Asp Ile *
 275 280

cttcttcccc aggacatgat gagctacatt gggcccaaga ggacagcagt ggtgcggggg 987
 ataatgcacc gggaggcctt taacatcatt ggccgccgca tagtccaggt ggcccaggcc 1047
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 cagaagtcgg cagaagagtt ggcgtctggg cacctggcat ctgcctttgt cgccagccag 1947
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 acaggcttac aatggcgagc ct 2029

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ctc acc acc aag acg cag ccc gtg gaa gcc acc gat gat gcc ttt tgg 96
 Leu Thr Thr Lys Thr Gln Pro Val Glu Ala Thr Asp Asp Ala Phe Trp
 20 25 30

gac cag ttc tgg gca gac aca gcc acc tcg gtg cag gat gtg ttt gca Asp Gln Phe Trp Ala Asp Thr Ala Thr Ser Val Gln Asp Val Phe Ala 35 40 45	144
ctg gtg ccg gca gca gag atc cgg gcc gtg cgg gaa gag tca ccc tcc Leu Val Pro Ala Ala Glu Ile Arg Ala Val Arg Glu Glu Ser Pro Ser 50 55 60	192
aac ttg gcc acc ctg tgc tac aag gcc gtt gag aag ctg gtg cag gga Asn Leu Ala Thr Leu Cys Tyr Lys Ala Val Glu Lys Leu Val Gln Gly 65 70 75 80	240
gct gag agt ggc tgc cac tcg gag aag gag aag cag atc gtc ctg aac Ala Glu Ser Gly Cys His Ser Glu Lys Glu Lys Gln Ile Val Leu Asn 85 90 95	288
tgc agc cgg ctg ctc acc cgc gtg ctg ccc tac atc ttt gag gac ccc Cys Ser Arg Leu Leu Thr Arg Val Leu Pro Tyr Ile Phe Glu Asp Pro 100 105 110	336
gac tgg agg ggc ttc ttc tgg tcc aca gtg ccc ggg gca ggg cga gga Asp Trp Arg Gly Phe Phe Trp Ser Thr Val Pro Gly Ala Gly Arg Gly 115 120 125	384
ggg gga gaa gag gat gat gag cat gcc agg ccc ctg gcc gag tcc ctg Gly Gly Glu Glu Asp Asp Glu His Ala Arg Pro Leu Ala Glu Ser Leu 130 135 140	432
ctc ctg gcc att gct gac ctg ctc ttc tgc ccg gac ttc acg gtt cag Leu Leu Ala Ile Ala Asp Leu Leu Phe Cys Pro Asp Phe Thr Val Gln 145 150 155 160	480
agc cac cgg agg agc act gtg gac tcg gca gag gac gtc cac tcc ctg Ser His Arg Arg Ser Thr Val Asp Ser Ala Glu Asp Val His Ser Leu 165 170 175	528
gac agc tgt gaa tac atc tgg gag gct ggt gtg ggc ttc gct cac tcc Asp Ser Cys Glu Tyr Ile Trp Glu Ala Gly Val Gly Phe Ala His Ser 180 185 190	576
ccc cag cct aac tac atc cac gat atg aac cgg atg gag ctg ctg aaa Pro Gln Pro Asn Tyr Ile His Asp Met Asn Arg Met Glu Leu Leu Lys 195 200 205	624
ctg ctg ctg aca tgc ttc tcc gag gcc atg tac ctg ccc cca gct ccg Leu Leu Leu Thr Cys Phe Ser Glu Ala Met Tyr Leu Pro Pro Ala Pro 210 215 220	672
gaa agt ggc agc acc aac cca tgg gtt cag ttc ttt tgt tcc acg gag Glu Ser Gly Ser Thr Asn Pro Trp Val Gln Phe Phe Cys Ser Thr Glu 225 230 235 240	720
aac aga cat gcc ctg ccc ctc ttc acc tcc ctc ctc aac acc gtg tgt Asn Arg His Ala Leu Pro Leu Phe Thr Ser Leu Leu Asn Thr Val Cys 245 250 255	768
gcc tat gac cct gtg ggc tac ggg atc ccc tac aac cac ctg ctc ttc Ala Tyr Asp Pro Val Gly Tyr Gly Ile Pro Tyr Asn His Leu Leu Phe 260 265 270	816
tct gac tac cgg gaa ccc ctg gtg gag gag gct gcc cag gtg ctc att Ser Asp Tyr Arg Glu Pro Leu Val Glu Glu Ala Ala Gln Val Leu Ile 275 280 285	864

gtc act ttg gac cac gac agt gcc agc agt gcc agc ccc act gtg gac	912
Val Thr Leu Asp His Asp Ser Ala Ser Ser Ala Ser Pro Thr Val Asp	
290 295 300	
ggc acc acc act ggc acc gcc atg gat gat gct gat cct cca ggc cct	960
Gly Thr Thr Thr Gly Thr Ala Met Asp Asp Ala Asp Pro Pro Gly Pro	
305 310 315 320	
gag aac ctg ttt gtg aac tac ctg tcc cgc atc cat cgt gag gag gac	1008
Glu Asn Leu Phe Val Asn Tyr Leu Ser Arg Ile His Arg Glu Glu Asp	
325 330 335	
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Phe Gln Phe Ile Leu Lys Gly Ile Ala Arg Leu Leu Ser Asn Pro Leu	
340 345 350	
ctc cag acc tac ctg cct aac tcc acc aag aag atc cag ttc cac cag	1104
Leu Gln Thr Tyr Leu Pro Asn Ser Thr Lys Lys Ile Gln Phe His Gln	
355 360 365	
gag ctg cta gtt ctc ttc tgg aag ctc tgc gac ttc aac aag aaa ttc	1152
Glu Leu Leu Val Leu Phe Trp Lys Leu Cys Asp Phe Asn Lys Lys Phe	
370 375 380	
ctc ttc ttc gtg ctg aag agc agc gac gtc cta gac atc ctt gtc ccc	1200
Leu Phe Phe Val Leu Lys Ser Ser Asp Val Leu Asp Ile Leu Val Pro	
385 390 395 400	
atc ctc ttc ttc ctc aac gat gcc cgg gcc gat cag tct cgg gtg ggc	1248
Ile Leu Phe Phe Leu Asn Asp Ala Arg Ala Asp Gln Ser Arg Val Gly	
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ctg atg cac att ggt gtc ttc atc ttg ctg ctt ctg agc ggg gag cgg	1296
Leu Met His Ile Gly Val Phe Ile Leu Leu Leu Leu Ser Gly Glu Arg	
420 425 430	
aac ttc ggg gtg cgg ctg aac aaa ccc tac tca atc cgc gtg ccc atg	1344
Asn Phe Gly Val Arg Leu Asn Lys Pro Tyr Ser Ile Arg Val Pro Met	
435 440 445	
gac atc cca gtc ttc aca ggg acc cac gcc gac ctg ctc att gtg gtg	1392
Asp Ile Pro Val Phe Thr Gly Thr His Ala Asp Leu Leu Ile Val Val	
450 455 460	
ttc cac aag atc atc acc agc ggg cac cag cgg ttg cag ccc ctc ttc	1440
Phe His Lys Ile Ile Thr Ser Gly His Gln Arg Leu Gln Pro Leu Phe	
465 470 475 480	
gac tgc ctg ctc acc atc gtg gtc aac gtg tcc ccc tac ctc aag agc	1488
Asp Cys Leu Leu Thr Ile Val Val Asn Val Ser Pro Tyr Leu Lys Ser	
485 490 495	
ctg tcc atg gtg acc gcc aac aag ttg ctg cac ctg ctg gag gcc ttc	1536
Leu Ser Met Val Thr Ala Asn Lys Leu Leu His Leu Leu Glu Ala Phe	
500 505 510	
tcc acc acc tgg ttc ctc ttc tct gcc gcc cag aac cac cac ctg gtc	1584
Ser Thr Thr Trp Phe Leu Phe Ser Ala Ala Gln Asn His His Leu Val	
515 520 525	
ttc ttc ctc ctg gag gtc ttc aac aac atc atc cag tac cag ttt gat	1632
Phe Phe Leu Leu Glu Val Phe Asn Asn Ile Ile Gln Tyr Gln Phe Asp	
530 535 540	

ggc aac tcc aac ctg gtc tac gcc atc atc cgc aag cgc agc atc ttc	1680
Gly Asn Ser Asn Leu Val Tyr Ala Ile Ile Arg Lys Arg Ser Ile Phe	
545 550 555 560	
cac cag ctg gcc aac ctg ccc acg gac ccg ccc acc att cac aag gcc	1728
His Gln Leu Ala Asn Leu Pro Thr Asp Pro Pro Thr Ile His Lys Ala	
565 570 575	
ctg cag cgg cgc cgg cgg aca cct gag ccc ttg tct cgc acc ggc tcc	1776
Leu Gln Arg Arg Arg Arg Thr Pro Glu Pro Leu Ser Arg Thr Gly Ser	
580 585 590	
cag gag ggc acc tcc atg gag ggc tcc cgc ccc gct gcc cct gca gag	1824
Gln Glu Gly Thr Ser Met Glu Gly Ser Arg Pro Ala Ala Pro Ala Glu	
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cca ggc acc ctc aag acc agt ctg gtg gct act cca ggc att gac aag	1872
Pro Gly Thr Leu Lys Thr Ser Leu Val Ala Thr Pro Gly Ile Asp Lys	
610 615 620	
ctg acc gag aag tcc cag gtg tca gag gat ggc acc ttg cgg tcc ctg	1920
Leu Thr Glu Lys Ser Gln Val Ser Glu Asp Gly Thr Leu Arg Ser Leu	
625 630 635 640	
gaa cct gag ccc cag cag agc ttg gag gat ggc agc ccg gct aag ggg	1968
Glu Pro Glu Pro Gln Gln Ser Leu Glu Asp Gly Ser Pro Ala Lys Gly	
645 650 655	
gag ccc agc cag gca tgg agg gag cag cgg cga ccg tcc acc tca tca	2016
Glu Pro Ser Gln Ala Trp Arg Glu Gln Arg Arg Pro Ser Thr Ser Ser	
660 665 670	
gcc agt ggg cag tgg agc cca acg cca gag tgg gtc ctc tcc tgg aag	2064
Ala Ser Gly Gln Trp Ser Pro Thr Pro Glu Trp Val Leu Ser Trp Lys	
675 680 685	
tcg aag ctg ccg ctg cag acc atc atg agg ctg ctg cag gtg ctg gtt	2112
Ser Lys Leu Pro Leu Gln Thr Ile Met Arg Leu Leu Gln Val Leu Val	
690 695 700	
ccg cag gtg gag aag atc tgc atc gac aag ggc ctg acg gat gag tct	2160
Pro Gln Val Glu Lys Ile Cys Ile Asp Lys Gly Leu Thr Asp Glu Ser	
705 710 715 720	
gag atc ctg cgg ttc ctg cag cat ggc acc ctg gtg ggg ctg ctg ccc	2208
Glu Ile Leu Arg Phe Leu Gln His Gly Thr Leu Val Gly Leu Leu Pro	
725 730 735	
gtg ccc cac ccc atc ctc atc cgc aag tac cag gcc aac tcg ggc act	2256
Val Pro His Pro Ile Leu Ile Arg Lys Tyr Gln Ala Asn Ser Gly Thr	
740 745 750	
gcc atg tgg ttc cgc acc tac atg tgg ggc gtc atc tat ctg agg aat	2304
Ala Met Trp Phe Arg Thr Tyr Met Trp Gly Val Ile Tyr Leu Arg Asn	
755 760 765	
gtg gac ccc cct gtc tgg tac gac acc gac gtg aag ctg ttt gag ata	2352
Val Asp Pro Pro Val Trp Tyr Asp Thr Asp Val Lys Leu Phe Glu Ile	
770 775 780	
cag cgg gtg tga gga tgaagccgac gaggggctca gtctagggga aggcagggcc	2407
Gln Arg Val *	
785	

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ttgggtccctg aggcttcccc catccaccat tctgagcttt aaattaccac gatcagggcc 2467
tggaacaggc agagtggccc tgagtgtcat gccctagaga cccctgtggc caggacaatg 2527
tgaactggct cagatccccc tcaacccta ggctggactc acaggagccc catctctggg 2587
gctatgcccc caccagagac cactgcccc aacactcgga ctccctcttt aagacctggc 2647
tcagtgtctg cccctcagtg cccacccact cctgtgtctac ccagccccag aggcagaagc 2707
caatgggtca ctgtgcccta aggggtttga ccagggaacc acgggtgtgc ccttgaggtg 2767
cctggacagg gtaagggggt gcttccagcc tctaaccaca aagccagctg ttccaggctc 2827
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tgctatattc tcttgatcc gtggaaatag cctggctccc tcttaccag taatgagggg 3007
caggggaagg aactgggagg cagccgttta gtcctccctg ccctgcccac tgctggatg 3067
gggcgatgcc acccctcctc cttcaccag ctctggcctc tgggtcccac caccagccc 3127
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ccacaaaaaa aaaaaaaaaa a 3208

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<210> 932
<211> 1669
<212> DNA
<213> Homo sapiens

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<222> (74) .. (1495)

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<222> (1) ... (1669)
<223> n = a,t,c or g

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ccagcaggct tgg atg caa aat aaa gtt cca att cct gct cca aat gag 109
Met Gln Asn Lys Val Pro Ile Pro Ala Pro Asn Glu
1 5 10
gtg ctg aat gac aga aaa gaa gac att aaa ttg gaa gag aag aaa aaa 157
Val Leu Asn Asp Arg Lys Glu Asp Ile Lys Leu Glu Glu Lys Lys Lys
15 20 25
aca caa gca gaa att gag caa gaa atg gct aca tta caa tat act aac 205
Thr Gln Ala Glu Ile Glu Gln Glu Met Ala Thr Leu Gln Tyr Thr Asn
30 35 40
cca caa ctt ctg gag caa ctt aaa att gaa aga ctt gca cag aaa caa 253
Pro Gln Leu Leu Glu Gln Leu Lys Ile Glu Arg Leu Ala Gln Lys Gln
45 50 55 60

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gtt gag caa att cag cct cct ccc tca tct ggc acc cct ctc ctc gga	301
Val Glu Gln Ile Gln Pro Pro Pro Ser Ser Gly Thr Pro Leu Leu Gly	
65 70 75	
ccc cag cct ttt cca gga caa ggt cca atg tct cag att cct caa ggt	349
Pro Gln Pro Phe Pro Gly Gln Gly Pro Met Ser Gln Ile Pro Gln Gly	
80 85 90	
ttt caa cag ccc cat cca tct cag cag atg cca atg aac atg gct caa	397
Phe Gln Gln Pro His Pro Ser Gln Gln Met Pro Met Asn Met Ala Gln	
95 100 105	
atg ggg cct cca ggt cca cag gga cag ttt agg cct cct gga ccc cag	445
Met Gly Pro Pro Gly Pro Gln Gly Gln Phe Arg Pro Pro Gly Pro Gln	
110 115 120	
gga caa atg gga cca caa ggt cct cca ctg cat cag gga ggt ggg ggg	493
Gly Gln Met Gly Pro Gln Gly Pro Pro Leu His Gln Gly Gly Gly Gly	
125 130 135 140	
cca caa gga ttc atg gga cca cag ggg ccc cag ggc ccg ccc cag ggg	541
Pro Gln Gly Phe Met Gly Pro Gln Gly Pro Gln Gly Pro Pro Gln Gly	
145 150 155	
ttg cca cgg cct cag gac atg cat ggg ccc caa gga atg cag agg cat	589
Leu Pro Arg Pro Gln Asp Met His Gly Pro Gln Gly Met Gln Arg His	
160 165 170	
cct gga cct cat ggc cct ttg gga cct caa ggg cca cct gga cca caa	637
Pro Gly Pro His Gly Pro Leu Gly Pro Gln Gly Pro Pro Gly Pro Gln	
175 180 185	
ggt agt tct ggt cct caa ggt cat atg ggt cct cag ggt cca cct ggc	685
Gly Ser Ser Gly Pro Gln Gly His Met Gly Pro Gln Gly Pro Pro Gly	
190 195 200	
cca cag ggt cac ata ggc ccc caa ggc ccg cct ggc cct cag ggt cac	733
Pro Gln Gly His Ile Gly Pro Gln Gly Pro Pro Gly Pro Gln Gly His	
205 210 215 220	
ttg ggc cca cag ggg cct ccg ggt act caa ggt atg cag gga cca cct	781
Leu Gly Pro Gln Gly Pro Pro Gly Thr Gln Gly Met Gln Gly Pro Pro	
225 230 235	
ggt ccc aga gga atg caa ggg cct cct cat cct cat ggg atc caa ggc	829
Gly Pro Arg Gly Met Gln Gly Pro Pro His Pro His Gly Ile Gln Gly	
240 245 250	
gga cca ggg tct caa ggg atc caa ggt cct gtg tct cag gga cct ctg	877
Gly Pro Gly Ser Gln Gly Ile Gln Gly Pro Val Ser Gln Gly Pro Leu	
255 260 265	
atg gga ttg aat cca aga gga atg cag ggg cct cca ggc ccc cgg gag	925
Met Gly Leu Asn Pro Arg Gly Met Gln Gly Pro Pro Gly Pro Arg Glu	
270 275 280	
aac cag ggt cct gct ccc caa ggg atg att atg ggc cac ccg cct caa	973
Asn Gln Gly Pro Ala Pro Gln Gly Met Ile Met Gly His Pro Pro Gln	
285 290 295 300	
gag atg aga gga cct cac cct cca ggt gga cta ctg gga cac ggc cct	1021
Glu Met Arg Gly Pro His Pro Pro Gly Gly Leu Leu Gly His Gly Pro	
305 310 315	

cag gaa atg aga ggt cct cag gag atc cga ggc atg cag ggg cct cca 1069
 Gln Glu Met Arg Gly Pro Gln Glu Ile Arg Gly Met Gln Gly Pro Pro
 320 325 330

ccc caa gga tca atg ctg gga cct ccc cag gaa ttg cga ggg cct cca 1117
 Pro Gln Gly Ser Met Leu Gly Pro Pro Gln Glu Leu Arg Gly Pro Pro
 335 340 345

ggc tca caa agt cag cag ggg ccg ccc cag ggc tct tta gga cct cca 1165
 Gly Ser Gln Ser Gln Gln Gly Pro Pro Gln Gly Ser Leu Gly Pro Pro
 350 355 360

ccc cag ggt ggc atg caa gga ccc ccc gga cct cag gga cag cag aac 1213
 Pro Gln Gly Gly Met Gln Gly Pro Pro Gly Pro Gln Gly Gln Gln Asn
 365 370 375 380

cca gca aga ggg cca cat cca tct caa ggg cca ata cca ttc cag caa 1261
 Pro Ala Arg Gly Pro His Pro Ser Gln Gly Pro Ile Pro Phe Gln Gln
 385 390 395

cag aaa acg cct ctg cta ggt gat ggg ccc cgg gcc ccc ttc aac cag 1309
 Gln Lys Thr Pro Leu Leu Gly Asp Gly Pro Arg Ala Pro Phe Asn Gln
 400 405 410

gaa gga cag agc aca ggc ccc cca ccc ctg ata cca ggc cta ggg cag 1357
 Glu Gly Gln Ser Thr Gly Pro Pro Pro Leu Ile Pro Gly Leu Gly Gln
 415 420 425

cag gga gca caa ggt cgc att ccc cct ctg aac ccc gga caa gga cct 1405
 Gln Gly Ala Gln Gly Arg Ile Pro Pro Leu Asn Pro Gly Gln Gly Pro
 430 435 440

ggc ccc aac aaa gtt tca gaa gag gag ccc cgc cga ggc atg agg gcc 1453
 Gly Pro Asn Lys Val Ser Glu Glu Glu Pro Arg Arg Gly Met Arg Ala
 445 450 455 460

gtg ctc ccc cca gag gaa ggg atg gtt ttc ctg gtc cta tga agacttt 1502
 Val Leu Pro Pro Glu Glu Gly Met Val Phe Leu Val Leu *
 465 470

agtccnagag gagaattttt gatgcttatg agggaagcgg gcccgaggac gagatcttca 1562

gaaggtcgag gtcgggggtac cccacgaagg agggaaggaa gggtttactt cccactcctg 1622

acgagttccc tcgctttgat gagggcggaa gccacattcc tgcgatg 1669

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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (46) .. (963)

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 Met Tyr Asn
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atg atg gag acg gag ctg aag ccg ccg ggc ccg cag caa act tcg ggg 102

Met	Met	Glu	Thr	Glu	Leu	Lys	Pro	Pro	Gly	Pro	Gln	Gln	Thr	Ser	Gly	
	5					10					15					
ggc	ggc	ggc	ggc	aac	tcc	acc	gcg	gcg	gcg	gcc	ggc	ggc	aac	cag	aaa	150
Gly	Gly	Gly	Gly	Asn	Ser	Thr	Ala	Ala	Ala	Ala	Gly	Gly	Asn	Gln	Lys	
20					25				30						35	
aac	agc	ccg	gac	cgc	gtc	aag	cgg	ccc	atg	aat	gcc	ttc	atg	gtg	tgg	198
Asn	Ser	Pro	Asp	Arg	Val	Lys	Arg	Pro	Met	Asn	Ala	Phe	Met	Val	Trp	
				40					45					50		
tcc	cgc	ggg	cag	cgg	cgc	aag	atg	gcc	cag	gag	aac	ccc	aag	atg	cac	246
Ser	Arg	Gly	Gln	Arg	Arg	Lys	Met	Ala	Gln	Glu	Asn	Pro	Lys	Met	His	
			55					60					65			
aac	tcg	gag	atc	agc	aag	cgc	ctg	ggc	gcc	gag	tgg	aaa	ctt	ttg	tcg	294
Asn	Ser	Glu	Ile	Ser	Lys	Arg	Leu	Gly	Ala	Glu	Trp	Lys	Leu	Leu	Ser	
		70					75					80				
gag	acg	gag	aag	cgg	ccg	ttc	atc	gac	gag	gct	aag	cgg	ctg	cga	gcg	342
Glu	Thr	Glu	Lys	Arg	Pro	Phe	Ile	Asp	Glu	Ala	Lys	Arg	Leu	Arg	Ala	
	85					90					95					
ctg	cac	atg	aag	gag	cac	ccg	gat	tat	aaa	tac	cgg	ccc	cgg	cgg	aaa	390
Leu	His	Met	Lys	Glu	His	Pro	Asp	Tyr	Lys	Tyr	Arg	Pro	Arg	Arg	Lys	
100					105					110					115	
acc	aag	acg	ctc	atg	aag	aag	gat	aag	tac	acg	ctg	ccc	ggc	ggg	ctg	438
Thr	Lys	Thr	Leu	Met	Lys	Lys	Asp	Lys	Tyr	Thr	Leu	Pro	Gly	Gly	Leu	
				120					125					130		
ctg	gcc	ccc	ggc	ggc	aat	agc	atg	gcg	agc	ggg	gtc	ggg	gtg	ggc	gcc	486
Leu	Ala	Pro	Gly	Gly	Asn	Ser	Met	Ala	Ser	Gly	Val	Gly	Val	Gly	Ala	
			135					140					145			
ggc	ctg	ggc	gcg	ggc	gtg	aac	cag	cgc	atg	gac	agt	tac	gcg	cac	atg	534
Gly	Leu	Gly	Ala	Gly	Val	Asn	Gln	Arg	Met	Asp	Ser	Tyr	Ala	His	Met	
	150						155					160				
aac	ggc	tgg	agc	aac	ggc	agc	tac	agc	atg	atg	cag	gac	cag	ctg	ggc	582
Asn	Gly	Trp	Ser	Asn	Gly	Ser	Tyr	Ser	Met	Met	Gln	Asp	Gln	Leu	Gly	
	165					170					175					
tac	ccg	cag	cac	ccg	ggc	ctc	aat	gcg	cac	ggc	gca	gcg	cag	atg	cag	630
Tyr	Pro	Gln	His	Pro	Gly	Leu	Asn	Ala	His	Gly	Ala	Ala	Gln	Met	Gln	
180					185					190					195	
ccc	atg	cac	cgc	tac	gac	gtg	agc	gcc	ctg	cag	tac	aac	tcc	atg	acc	678
Pro	Met	His	Arg	Tyr	Asp	Val	Ser	Ala	Leu	Gln	Tyr	Asn	Ser	Met	Thr	
				200					205					210		
agc	atg	tcc	tac	tcg	cag	cag	ggc	acc	cct	ggc	atg	gct	ctt	ggc	tcc	726
Ser	Met	Ser	Tyr	Ser	Gln	Gln	Gly	Thr	Pro	Gly	Met	Ala	Leu	Gly	Ser	
			215					220					225			
atg	ggt	tcg	gtg	gtc	aag	tcc	gag	gcc	agc	tcc	agc	ccc	cct	gtg	gtt	774
Met	Gly	Ser	Val	Val	Lys	Ser	Glu	Ala	Ser	Ser	Ser	Pro	Pro	Val	Val	
	230						235					240				
acc	tct	tcc	tcc	cac	tcc	agg	gcg	ccc	tgc	cag	gcc	ggg	gac	ctc	cgg	822
Thr	Ser	Ser	Ser	His	Ser	Arg	Ala	Pro	Cys	Gln	Ala	Gly	Asp	Leu	Arg	
	245					250					255					
gac	atg	atc	agc	atg	tat	ctc	ccc	ggc	gcc	gag	gtg	ccg	gaa	ccc	gcc	870

Asp Met Ile Ser Met Tyr Leu Pro Gly Ala Glu Val Pro Glu Pro Ala
 260 265 270 275
 gcc ccc agc aga ctt cac atg tcc cag cac tac cag agc ggc ccg gtg 918
 Ala Pro Ser Arg Leu His Met Ser Gln His Tyr Gln Ser Gly Pro Val
 280 285 290
 ccc ggc acg gcc att aac ggc aca ctg ccc ctc tca cac atg tga ggg 966
 Pro Gly Thr Ala Ile Asn Gly Thr Leu Pro Leu Ser His Met *
 295 300 305
 ccggacagcg aactggaggg gggagaaatt ttcaaagaaa aacgagggaa atgggagggg 1026
 tgcaaaagag gagagtaaga aacagcatgg agaaaacccg gtacgctcaa aaagaaaaaa 1086
 a 1087

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 <212> DNA
 <213> Homo sapiens

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 <222> (21) .. (1868)

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 Thr Pro Gly Leu Ser Ala Lys Gly Gly Ile Leu Tyr Ser Ser Ser Arg
 15 20 25
 tct cca gaa gag aca ctc tca cct gcc agc atg aga agc tcc agc atc 146
 Ser Pro Glu Glu Thr Leu Ser Pro Ala Ser Met Arg Ser Ser Ser Ile
 30 35 40
 agt gga gaa ccc acc agc ttg tat agc caa gca gag tca aca cac aca 194
 Ser Gly Glu Pro Thr Ser Leu Tyr Ser Gln Ala Glu Ser Thr His Thr
 45 50 55
 aca gcg ttc cct gcc agc acc acc acc tca ggc ctc agt cag gaa tca 242
 Thr Ala Phe Pro Ala Ser Thr Thr Thr Ser Gly Leu Ser Gln Glu Ser
 60 65 70
 aca act ttc cac agt aag cca ggc tca act gag aca aca ctg tcc cct 290
 Thr Thr Phe His Ser Lys Pro Gly Ser Thr Glu Thr Thr Leu Ser Pro
 75 80 85 90
 ggc agc atc aca act tca tct ttt gct caa gaa ttt acc acc cct cat 338
 Gly Ser Ile Thr Thr Ser Ser Phe Ala Gln Glu Phe Thr Thr Pro His
 95 100 105
 agc caa cca ggc tca gct ctg tca aca gtg tca cct gcc agc acc aca 386
 Ser Gln Pro Gly Ser Ala Leu Ser Thr Val Ser Pro Ala Ser Thr Thr
 110 115 120
 gtg cca ggc ctt agt gag gaa tct acc acc ttc tac agc agc cca ggc 434
 Val Pro Gly Leu Ser Glu Glu Ser Thr Thr Phe Tyr Ser Ser Pro Gly

125	130	135	
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Ser Thr Glu Thr Thr Ala Phe Ser His Ser Asn Thr Met Ser Ile His			
140	145	150	
agt caa caa tct aca ccc ttc cct gac agc cca ggc ttc act cac aca			530
Ser Gln Gln Ser Thr Pro Phe Pro Asp Ser Pro Gly Phe Thr His Thr			
155	160	165	170
gtg tta cct gcc acc ctc aca acc aca gac att ggt cag gaa tca aca			578
Val Leu Pro Ala Thr Leu Thr Thr Thr Asp Ile Gly Gln Glu Ser Thr			
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gcc ttc cac agc agc tca gac gca act gga aca aca ccc tta cct gcc			626
Ala Phe His Ser Ser Ser Asp Ala Thr Gly Thr Thr Pro Leu Pro Ala			
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cgc tcc aca gcc tca gac ctt gtt gga gaa cct aca act ttc tac atc			674
Arg Ser Thr Ala Ser Asp Leu Val Gly Glu Pro Thr Thr Phe Tyr Ile			
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agc cca tcc cct act tac aca aca ctc ttt cct gcg agt tcc agc aca			722
Ser Pro Ser Pro Thr Tyr Thr Thr Leu Phe Pro Ala Ser Ser Ser Thr			
	220	225	230
tca ggc ctc act gag gaa tct acc acc ttc cac acc agt cca agc ttc			770
Ser Gly Leu Thr Glu Glu Ser Thr Thr Phe His Thr Ser Pro Ser Phe			
235	240	245	250
act tct aca att gtg tct act gaa agc ctg gaa acc tta gca cca ggg			818
Thr Ser Thr Ile Val Ser Thr Glu Ser Leu Glu Thr Leu Ala Pro Gly			
	255	260	265
ttg tgc cag gaa gga caa att tgg aat gga aaa caa tgc gtc tgt ccc			866
Leu Cys Gln Glu Gly Gln Ile Trp Asn Gly Lys Gln Cys Val Cys Pro			
	270	275	280
caa ggc tac gtt ggt tac cag tgc ttg tcc cct ctg gaa tcc ttc cct			914
Gln Gly Tyr Val Gly Tyr Gln Cys Leu Ser Pro Leu Glu Ser Phe Pro			
	285	290	295
gta gaa acc ccg gaa aaa ctc aac gcc act tta ggt atg aca gtg aaa			962
Val Glu Thr Pro Glu Lys Leu Asn Ala Thr Leu Gly Met Thr Val Lys			
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gtg act tac aga aat ttc aca gaa aag atg aat gac gca tcc tcc cag			1010
Val Thr Tyr Arg Asn Phe Thr Glu Lys Met Asn Asp Ala Ser Ser Gln			
315	320	325	330
gaa tac cag aac ttc agt acc ctc ttc aag aat cgg atg gat gtc gtt			1058
Glu Tyr Gln Asn Phe Ser Thr Leu Phe Lys Asn Arg Met Asp Val Val			
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ttg aag ggc gac aat ctt cct cag tat aga ggg gtg aac att cgg aga			1106
Leu Lys Gly Asp Asn Leu Pro Gln Tyr Arg Gly Val Asn Ile Arg Arg			
	350	355	360
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Leu Leu Asn Gly Ser Ile Val Val Lys Asn Asp Val Ile Leu Glu Ala			
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gac tac act tta gag tat gag gaa ctg ttt gaa aac ctg gca gag att			1202
Asp Tyr Thr Leu Glu Tyr Glu Glu Leu Phe Glu Asn Leu Ala Glu Ile			

380	385	390	
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Val Lys Ala Lys Ile Met Asn Glu Thr Arg Thr Thr Leu Leu Asp Pro			
395	400	405	410
gat tcc tgc aga aag gcc ata ctg tgc tat agt gaa gag gac act ttc			1298
Asp Ser Cys Arg Lys Ala Ile Leu Cys Tyr Ser Glu Glu Asp Thr Phe			
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gtg gat tca tgc gtg act ccg ggc ttt gac ttc cag gag caa tgc acc			1346
Val Asp Ser Ser Val Thr Pro Gly Phe Asp Phe Gln Glu Gln Cys Thr			
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Gln Lys Ala Ala Glu Gly Tyr Thr Gln Phe Tyr Tyr Val Asp Val Leu			
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Asp Gly Lys Leu Ala Cys Val Asn Lys Cys Thr Lys Gly Thr Lys Ser			
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caa atg aac tgt aac ctg ggc aca tgt cag ctg caa cgc agt ggc ccc			1490
Gln Met Asn Cys Asn Leu Gly Thr Cys Gln Leu Gln Arg Ser Gly Pro			
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cgc tgc ctg tgc cca aat acg aac aca cac tgg tac tgg gga gag acc			1538
Arg Cys Leu Cys Pro Asn Thr Asn Thr His Trp Tyr Trp Gly Glu Thr			
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Cys Glu Phe Asn Ile Ala Lys Ser Leu Val Tyr Gly Ile Val Gly Ala			
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Ser Leu Ser Gln Arg Lys Arg His Arg Glu Gln Tyr Asp Val Pro Gln			
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Glu Trp Arg Lys Glu Gly Thr Pro Gly Ile Phe Gln Lys Thr Ala Ile			
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tgg gaa gac cag aat ctg agg gag agc aga ttc ggc ctt gag aac gcc			1778
Trp Glu Asp Gln Asn Leu Arg Glu Ser Arg Phe Gly Leu Glu Asn Ala			
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tac aac aac ttc cgg ccc acc ctg gag act gtt gac tct ggc aca gag			1826
Tyr Asn Asn Phe Arg Pro Thr Leu Glu Thr Val Asp Ser Gly Thr Glu			
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ctc cac atc cag agg ccg gag atg gta gca tcc cct gtg tga gccaacg			1875
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 Gln Glu Ala Gln Pro Arg Pro Ser Leu Thr Thr Ala His Ala Lys Lys
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 Asp Pro Gly Met Asp Ser Arg Glu Ala Gly Leu Thr Pro Ser Pro Gly
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 Asp Pro Met Ala Gly Gly Gly Pro Gln Ala Asn Pro Asp Tyr Leu Phe
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 His Val Ile Phe Leu Gly Asp Ser Asn Val Gly Lys Thr Ser Phe Leu
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 His Leu Leu His Gln Asn Ser Phe Ala Thr Gly Leu Thr Ala Thr Val
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 Gly Val Asp Phe Arg Val Lys Thr Leu Leu Val Asp Asn Lys Cys Phe
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 Val Leu Gln Leu Trp Asp Thr Ala Gly Gln Glu Arg Tyr His Ser Met
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 Thr Arg Gln Leu Leu Arg Lys Ala Asp Gly Val Val Leu Met Tyr Asp
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Leu Gln Asp Ala Gly Ser Asp Gly Val Val Ile Leu Leu Leu Gly Asn
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Lys Met Asp Cys Glu Glu Glu Arg Gln Val Ser Val Glu Ala Gly Gln
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Lys Arg Pro Pro Lys Arg Phe Gly Cys Cys Ser *
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gagtgaacaa ggcttgaggg gcaggggtat ggcaaaactc tccaaacaaa gaaagtctag      1244

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Thr Leu Ala Lys Thr Lys Asp Val Glu Ile Leu His Leu Arg Asn Glu
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140 145 150	
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155 160 165	
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170 175 180	
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 Met Phe
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Thr Ile Leu Ser Gly Phe Ile Ile Arg Gly Tyr Leu Gly Lys Trp Thr	
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Pro Phe Thr Val Thr Asp Leu Thr Pro Met Glu Ile Val Val Asp Ile	
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Gln	His	Val	Pro	Gly	Tyr	Ile	Asp	Met	Val	Ser	Thr	Phe	Gly	Ser	Gly		
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Ser Glu Ser Asp Val Ile Ile Ile Pro Ser Ala Leu Asp Phe Val Ser
25 30 35 40

caa gat gaa atg ttg acg ccc ctg ggg aga ttg gac aag tat gct gca 196
Gln Asp Glu Met Leu Thr Pro Leu Gly Arg Leu Asp Lys Tyr Ala Ala
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Asp Thr Leu Arg Glu Val Cys Asp Asp Glu Arg Asp Cys Ile Ala Val
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90 95 100

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Ala Glu Leu Met Glu Gln Val Pro His Ile Ala Leu Phe Cys Gln Glu
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aaa gac ctc gat gaa gtc agg ata ggt gtt ctt aaa cac ttg cat gat	2212
Lys Asp Leu Asp Glu Val Arg Ile Gly Val Leu Lys His Leu His Asp	
715 720 725	
ttt ctg aag ctt ctt cat att gac aaa aga aga gaa tat ctt tat caa	2260
Phe Leu Lys Leu Leu His Ile Asp Lys Arg Arg Glu Tyr Leu Tyr Gln	
730 735 740	
ctt cag gag ttt ttg gtg aca gat aat agt aga aat tgg cgg ttt cga	2308
Leu Gln Glu Phe Leu Val Thr Asp Asn Ser Arg Asn Trp Arg Phe Arg	
745 750 755 760	
gct gaa ctg gct gaa cag ctg att tta ctt cta gag tta tat agt ccc	2356
Ala Glu Leu Ala Glu Gln Leu Ile Leu Leu Leu Glu Leu Tyr Ser Pro	
765 770 775	
aga gat gtt tat gac tat tta cgt ccc att gct ctg aat ctg tgt gca	2404
Arg Asp Val Tyr Asp Tyr Leu Arg Pro Ile Ala Leu Asn Leu Cys Ala	
780 785 790	
gac aaa gtt tct tct gtt cgt tgg att tcc tac aag ttg gtc agc gag	2452
Asp Lys Val Ser Ser Val Arg Trp Ile Ser Tyr Lys Leu Val Ser Glu	
795 800 805	
atg gtg aag aag ctg cac gcg gca aca cca cca acg ttc gga gtg gac	2500
Met Val Lys Lys Leu His Ala Ala Thr Pro Pro Thr Phe Gly Val Asp	
810 815 820	
ctc atc aat gag ctt gtg gag aac ttt ggc aga tgt ccc aag tgg tct	2548
Leu Ile Asn Glu Leu Val Glu Asn Phe Gly Arg Cys Pro Lys Trp Ser	
825 830 835 840	
ggt cgg caa gcc ttt gtc ttt gtc tgc cag act gtc att gag gat gac	2596
Gly Arg Gln Ala Phe Val Phe Val Cys Gln Thr Val Ile Glu Asp Asp	
845 850 855	
tgc ctt ccc atg gac cag ttt gct gtg cat ctc atg ccg cat ctg cta	2644
Cys Leu Pro Met Asp Gln Phe Ala Val His Leu Met Pro His Leu Leu	
860 865 870	
acc tta gca aat gac agg gtt cct aac gtg cga gtg ctg ctt gca aag	2692
Thr Leu Ala Asn Asp Arg Val Pro Asn Val Arg Val Leu Leu Ala Lys	
875 880 885	
aca tta aga caa act cta cta gaa aaa gac tat ttc ttg gcc tct gcc	2740
Thr Leu Arg Gln Thr Leu Leu Glu Lys Asp Tyr Phe Leu Ala Ser Ala	
890 895 900	
agc tgc cac cag gag gct gtg gag cag acc atc atg gct ctt cag atg	2788
Ser Cys His Gln Glu Ala Val Glu Gln Thr Ile Met Ala Leu Gln Met	
905 910 915 920	


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gac cgg gac agc gat gtc aag tat ttt gca agc atc cac cct gcc agt      2836
Asp Arg Asp Ser Asp Val Lys Tyr Phe Ala Ser Ile His Pro Ala Ser
          925                      930                      935

acc aaa atc tcc gaa gat gcc atg agc aca gcg tcc tca acc tac tag      2884
Thr Lys Ile Ser Glu Asp Ala Met Ser Thr Ala Ser Ser Thr Tyr  *
          940                      945                      950

aaggcttgaa tctcgggtgtc tttcctgctt ccatgagagc cgagggttcag tgggcattcg  2944
ccacgcatgt gacctgggat agctttcggg ggaggagaga ccttcctctc ctgcggactt  3004
cattgcaggt gcaagttgcc tacaccaat accagggatt tcaagagtca agagaaagta  3064
cagtaaacac tattatctta tcttgacttt aaggggaaat aatttctcag aggattataa  3124
ttgtcacga agccttaaata ccttctgtct tcctgactga atgaaacttg aattggcaga  3184
gcattttcct tatggaaggg atgagattcc cagagacctg cattgctttc tcctggtttt  3244
atttaacaat cgacaaatga aattcttaca gcctgaaggc agacgtgtgc ccagatgtga  3304
aagagacctt cagtatcagc cctaactctt ctctcccagg aaggacttgc tgggctctgt  3364
ggccagctgt ccagcccagc cctgtgtgtg aatcgtttgt gacgtgtgca aatgggaaag  3424
gaggggtttt tacatctcct aaaggacctg atgccaacac aagtaggatt gacttaaact  3484
cttaagcgca gcatattgct gtacacattt acagaatggt tgctgagtgt ctgtgtctga  3544
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tttttaactt gatcatgac agctctgagg tgcaacttct tcacatactg tacataacctg  3664
tgaccactct tgggagtgtc gcagtcttta atcatgctgt ttaaactgtt gtggcacaag  3724
ttctcttgtc caaataaaaat ttattaataa gatctataga gagagatata tacacttttg  3784
attgttttct agatgtctac caataaatgc aatttgtgac ctgtattaat gatttaaagt  3844
ggggaaacta gattaaaata tttgtctttt aactagttta ttagtttctn tggaatctgc  3904
ctgtgtccct gggtttgggt tttgctcttg gcagcagcag gtgcctcttg ggtgctcctc  3964
ctgctcctgc ctgcagccct aagagcaggt gggtgccgag tgtctggcac agcttggatg  4024
ccgccactg aagacagcag aggggggttg t                                     4055

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<210> 940
<211> 2568
<212> DNA
<213> Homo sapiens

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<220>
<221> CDS
<222> (281) .. (2188)

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<400> 940
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gttgcat tac tgggtaatcg gggccctggc ttgccgcgtc cgccggatac cctcagccag	120
tgggcaggtc tgagctcggg ctccccgagc agtttgagtc cccttgcccg ctccttcagg	180
tctcagcggc ggtggcagcc gaggtgcagg atgcaagaag ggcggggctcc	240
cgctccaggc ctcgctcccc tgcggccctc tgagcccacc	295
atg gcc gtc cca ccg	
Met Ala Val Pro Pro	
1 5	
ggc cat ggt ccc ttc tct ggc ttc cca ggg ccc cag gag cac acg cag	343
Gly His Gly Pro Phe Ser Gly Phe Pro Gly Pro Gln Glu His Thr Gln	
10 15 20	
gta ttg cct gat gtg cgg cta ctg cct cgg agg ctg ccc ctg gcc ttc	391
Val Leu Pro Asp Val Arg Leu Leu Pro Arg Arg Leu Pro Leu Ala Phe	
25 30 35	
cgg gat gca acc tca gcc ccg ctg cgt aag ctc tct gtg gac ctc atc	439
Arg Asp Ala Thr Ser Ala Pro Leu Arg Lys Leu Ser Val Asp Leu Ile	
40 45 50	
aag acc tac aag cac atc aat gag gta tac tat gcg aag aag aag cgg	487
Lys Thr Tyr Lys His Ile Asn Glu Val Tyr Tyr Ala Lys Lys Lys Arg	
55 60 65	
cgg gcc cag cag gcg cca ccc cag gat tcg agc aac aag aag gag aag	535
Arg Ala Gln Gln Ala Pro Pro Gln Asp Ser Ser Asn Lys Lys Glu Lys	
70 75 80 85	
aag gtc ctg aac cat ggt tat gat gac gac aac cat gac tac atc gtg	583
Lys Val Leu Asn His Gly Tyr Asp Asp Asp Asn His Asp Tyr Ile Val	
90 95 100	
cgc agt ggc gag cgc tgg ctg gag cgc tac gaa att gac tcg ctc att	631
Arg Ser Gly Glu Arg Trp Leu Glu Arg Tyr Glu Ile Asp Ser Leu Ile	
105 110 115	
ggc aaa ggc tcc ttt ggc cag gtg gtg aaa gcc tat gat cat cag acc	679
Gly Lys Gly Ser Phe Gly Gln Val Val Lys Ala Tyr Asp His Gln Thr	
120 125 130	
cag gag ctt gtg gcc atc aag atc atc aag aac aaa aag gct ttc ctg	727
Gln Glu Leu Val Ala Ile Lys Ile Ile Lys Asn Lys Lys Ala Phe Leu	
135 140 145	
aac cag gcc cag att gag ctg cgg ctg ctg gag ctg atg aac cag cat	775
Asn Gln Ala Gln Ile Glu Leu Arg Leu Leu Glu Leu Met Asn Gln His	
150 155 160 165	
gac acg gag atg aag tac tat ata gta cac ctg aag cgg cac ttc atg	823
Asp Thr Glu Met Lys Tyr Tyr Ile Val His Leu Lys Arg His Phe Met	
170 175 180	
ttc cgg aac cac ctg tgc ctg gta ttt gag ctg ctg tcc tac aac ctg	871
Phe Arg Asn His Leu Cys Leu Val Phe Glu Leu Leu Ser Tyr Asn Leu	
185 190 195	
tac gac ctc ctg cgc aac acc cac ttc cgc ggc gtc tcg ctg aac ctg	919
Tyr Asp Leu Leu Arg Asn Thr His Phe Arg Gly Val Ser Leu Asn Leu	
200 205 210	
acc cgg aag ctg gcg cag cag ctc tgc acg gca ctg ctc ttt ctg gcc	967
Thr Arg Lys Leu Ala Gln Gln Leu Cys Thr Ala Leu Leu Phe Leu Ala	

215	220	225	
acg cct gag ctc agc atc att cac tgc gac ctc aag ccc gaa aac atc Thr Pro Glu Leu Ser Ile Ile His Cys Asp Leu Lys Pro Glu Asn Ile 230 235 240 245			1015
ttg ctg tgc aac ccc aag cgc agc gcc atc aag att gtg gac ttc ggc Leu Leu Cys Asn Pro Lys Arg Ser Ala Ile Lys Ile Val Asp Phe Gly 250 255 260			1063
agc tcc tgc cag ctt ggc cag agg atc tac cag tat atc cag agc cgc Ser Ser Cys Gln Leu Gly Gln Arg Ile Tyr Gln Tyr Ile Gln Ser Arg 265 270 275			1111
ttc tac cgc tca cct gag gtg ctc ctg ggc aca ccc tac gac ctg gcc Phe Tyr Arg Ser Pro Glu Val Leu Leu Gly Thr Pro Tyr Asp Leu Ala 280 285 290			1159
att gac atg tgg tcc ctg ggc tgc atc ctt gtg gag atg cac acc gga Ile Asp Met Trp Ser Leu Gly Cys Ile Leu Val Glu Met His Thr Gly 295 300 305			1207
gag ccc ctc ttc agt ggc tcc aat gag gtg tgc ccc cag gaa ggg gtc Glu Pro Leu Phe Ser Gly Ser Asn Glu Val Cys Pro Gln Glu Gly Val 310 315 320 325			1255
gac cag atg aac cgc att gtg gag gtg ctg ggc atc cca ccg gcc gcc Asp Gln Met Asn Arg Ile Val Glu Val Leu Gly Ile Pro Pro Ala Ala 330 335 340			1303
atg ctg gac cag gcg ccc aag gct cgc aag tac ttt gaa cgg ctg cct Met Leu Asp Gln Ala Pro Lys Ala Arg Lys Tyr Phe Glu Arg Leu Pro 345 350 355			1351
ggg ggt ggc tgg acc cta cga agg acg aaa gaa ctc agg aag gat tac Gly Gly Gly Trp Thr Leu Arg Arg Thr Lys Glu Leu Arg Lys Asp Tyr 360 365 370			1399
cag ggc ccc ggg aca cgg cgg ctg cag gag gtg ctg ggc gtg cag acg Gln Gly Pro Gly Thr Arg Arg Leu Gln Glu Val Leu Gly Val Gln Thr 375 380 385			1447
ggc ggg ccc ggg ggc cgg cgg gcg ggg gag ccg ggc cac agc ccc gcc Gly Gly Pro Gly Gly Arg Arg Ala Gly Glu Pro Gly His Ser Pro Ala 390 395 400 405			1495
gac tac ctc cgc ttc cag gac ctg gtg ctg cgc atg ctg gag tat gag Asp Tyr Leu Arg Phe Gln Asp Leu Val Leu Arg Met Leu Glu Tyr Glu 410 415 420			1543
ccc gcc gcc cgc atc agc ccc ctg ggg gct ctg cag cac ggc ttc ttc Pro Ala Ala Arg Ile Ser Pro Leu Gly Ala Leu Gln His Gly Phe Phe 425 430 435			1591
cgc cgc acg gcc gac gag gcc acc aac acg ggc ccg gca ggc agc agt Arg Arg Thr Ala Asp Glu Ala Thr Asn Thr Gly Pro Ala Gly Ser Ser 440 445 450			1639
gcc tcc acc tcg ccc gcg ccc ctc gac acc tgc ccc tct tcc agc acc Ala Ser Thr Ser Pro Ala Pro Leu Asp Thr Cys Pro Ser Ser Ser Thr 455 460 465			1687
gcc agc tcc atc tcc agt tct gga ggc tcc agt ggc tcc tcc agt gac Ala Ser Ser Ile Ser Ser Ser Gly Gly Ser Ser Gly Ser Ser Ser Asp 470 475 480 485			1735

470	475	480	485	
aac cgg acc tac cgc tac agc aac cga tat tgt ggg ggc cct ggg ccc				1783
Asn Arg Thr Tyr Arg Tyr Ser Asn Arg Tyr Cys Gly Gly Pro Gly Pro				
	490	495	500	
cct atc aca gac tgt gag atg aac agc ccc cag gtc cca ccc tcc cag				1831
Pro Ile Thr Asp Cys Glu Met Asn Ser Pro Gln Val Pro Pro Ser Gln				
	505	510	515	
ccg ctg cgg ccc tgg gca ggg ggt gat gtg ccc cac aag aca cat caa				1879
Pro Leu Arg Pro Trp Ala Gly Gly Asp Val Pro His Lys Thr His Gln				
	520	525	530	
gcc cct gcc tct gcc tcg tca ctg cct ggg acc ggg gcc cag tta ccc				1927
Ala Pro Ala Ser Ala Ser Ser Leu Pro Gly Thr Gly Ala Gln Leu Pro				
	535	540	545	
ccc cag ccc cga tac ctt ggt cgt ccc cca tca cca acc tca cca cca				1975
Pro Gln Pro Arg Tyr Leu Gly Arg Pro Pro Ser Pro Thr Ser Pro Pro				
	550	555	560	565
ccc ccg gag ctg atg gat gtg agc ctg gtg ggc ggc cct gct gac tgc				2023
Pro Pro Glu Leu Met Asp Val Ser Leu Val Gly Gly Pro Ala Asp Cys				
	570	575	580	
tcc cca cct cac cca gcg cct gcc ccc cag cac ccg gct gcc tca gcc				2071
Ser Pro Pro His Pro Ala Pro Ala Pro Gln His Pro Ala Ala Ser Ala				
	585	590	595	
ctc cgg act cgg atg act gga ggt cgt cca ccc ctc ccg cct cct gat				2119
Leu Arg Thr Arg Met Thr Gly Gly Arg Pro Pro Leu Pro Pro Pro Asp				
	600	605	610	
gac cct gcc act ctg ggg cct cac ctg ggc ctc cgt ggt gta ccc cag				2167
Asp Pro Ala Thr Leu Gly Pro His Leu Gly Leu Arg Gly Val Pro Gln				
	615	620	625	
agc aca gca gcc agc tcg tga cc ctgccccctc cctggggccc ctctgaagc				2220
Ser Thr Ala Ala Ser Ser *				
	630	635		
cataccctcc cccatctggg ggccctgggc tcccatcctc atctctctcc ttgactggaa				2280
ttgctgctac ccagctgggg tgggtgaggc ctgcactgat tggggcctgg ggcagggggg				2340
tcaaggagag ggttttggcc gctccctccc cactaaggac tggacccttg ggcccctctc				2400
cccccttttt tctattttatt gtaccaaaga cagtgggtgg ccggtggagg gaagaccccc				2460
cctcacccca ggaccctagg aggggggtggg ggcaggtagg gggagatggc cttgctcctc				2520
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<210> 941
<211> 665
<212> DNA
<213> Homo sapiens

<220>
<221> CDS

<222> (196) .. (501)

<400> 941

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cacctcttct gtcttcttgc atgcgaccgc gatctgtggt gcgatggctt cgtcctcaca      120
caggttcaag gaggtgccat catctgtggg ttgctgagct caccacgcgt cctgctttgt      180
aatgacaaag actgg atg gat ccc tct gaa gcc tgg gct aat gct aca tgt      231
                Met Asp Pro Ser Glu Ala Trp Ala Asn Ala Thr Cys
                1                5                10

cct ggt gtg aca tat gac cag gag agc cac cag gtg ata ttg cgt ctt      279
Pro Gly Val Thr Tyr Asp Gln Glu Ser His Gln Val Ile Leu Arg Leu
                15                20                25

gga gac cac gag ttc atc aag agt ctg aca ccc tta gaa gga act caa      327
Gly Asp His Glu Phe Ile Lys Ser Leu Thr Pro Leu Glu Gly Thr Gln
                30                35                40

gac acc ttt acc aat ttt cag cag gtt tat ctc tgg aaa gat tct gac      375
Asp Thr Phe Thr Asn Phe Gln Gln Val Tyr Leu Trp Lys Asp Ser Asp
                45                50                55                60

atg ggg tct cgg cct gag tct atg gga tgt aga aaa aac aca gtg cca      423
Met Gly Ser Arg Pro Glu Ser Met Gly Cys Arg Lys Asn Thr Val Pro
                65                70                75

agg cca gca tct cca aca gaa gca ggt act gac ccc caa acc ttc tta      471
Arg Pro Ala Ser Pro Thr Glu Ala Gly Thr Asp Pro Gln Thr Phe Leu
                80                85                90

cac act tgg gtg tct gaa tgc aga gac taa a tgggtgcacc aagagtttaa      522
His Thr Trp Val Ser Glu Cys Arg Asp *
                95                100

tcaatgaacg gatgtattga catcactcta ttctgtatcc atggactctc ctttaattct      582

ttaacccaat tatccagctc ataaatatgg gaagctcctc agatgggcca ttgtcacaag      642

aaagtaaggc ataactactg caa      665

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<210> 942

<211> 3913

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (146) .. (3757)

<400> 942

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cgagcccagag cccgagcccg agcccagagc cgagcccga a cgcaagcctg ggagcgcgga      120
gcccggttag ggactcctcc tatatt atg gag cag gca ccc aac atg gct gag      172
                Met Glu Gln Ala Pro Asn Met Ala Glu
                1                5

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ccc cgg ggc ccc gta gac cat gga gtc cag att cgc ttc atc aca gag	220
Pro Arg Gly Pro Val Asp His Gly Val Gln Ile Arg Phe Ile Thr Glu	
10 15 20 25	
cca gtg agt ggt gca gag atg ggc act cta cgt cga ggt gga cga cgc	268
Pro Val Ser Gly Ala Glu Met Gly Thr Leu Arg Arg Gly Gly Arg Arg	
30 35 40	
cca gct aag gat gca aga gcc agt acc tac ggg gtt gct gtg cgt gtg	316
Pro Ala Lys Asp Ala Arg Ala Ser Thr Tyr Gly Val Ala Val Arg Val	
45 50 55	
cag gga atc gct ggg cag ccc ttt gtg gtg ctc aac agt ggg gag aaa	364
Gln Gly Ile Ala Gly Gln Pro Phe Val Val Leu Asn Ser Gly Glu Lys	
60 65 70	
ggc ggt gac tcc ttt ggg gtc caa atc aag ggg gcc aat gac caa ggg	412
Gly Gly Asp Ser Phe Gly Val Gln Ile Lys Gly Ala Asn Asp Gln Gly	
75 80 85	
gcc tca gga gct ctg agc tca gat ttg gaa ctc cct gag aac ccc tac	460
Ala Ser Gly Ala Leu Ser Ser Asp Leu Glu Leu Pro Glu Asn Pro Tyr	
90 95 100 105	
tct cag gtc aag gga ttt cct gcc ccc tcg cag agc agc aca tct gat	508
Ser Gln Val Lys Gly Phe Pro Ala Pro Ser Gln Ser Ser Thr Ser Asp	
110 115 120	
gag gag cct ggg gcc tac tgg aat gga aag cta ctc cgt tcc cac tcc	556
Glu Glu Pro Gly Ala Tyr Trp Asn Gly Lys Leu Leu Arg Ser His Ser	
125 130 135	
cag gcc tca ctg gca ggc cct ggc cca gtg gat cct agt aac aga agc	604
Gln Ala Ser Leu Ala Gly Pro Gly Pro Val Asp Pro Ser Asn Arg Ser	
140 145 150	
aac agc atg ctg gag cta gcc ccg aaa gtg gct tcc cca ggt agc acc	652
Asn Ser Met Leu Glu Leu Ala Pro Lys Val Ala Ser Pro Gly Ser Thr	
155 160 165	
att gac act gct ccc ctg tct tca gtg gac tca ctc atc aac aag ttt	700
Ile Asp Thr Ala Pro Leu Ser Ser Val Asp Ser Leu Ile Asn Lys Phe	
170 175 180 185	
gac agt caa ctt gga ggc cag gcc cgg ggt cgg act ggc cgc cga aca	748
Asp Ser Gln Leu Gly Gly Gln Ala Arg Gly Arg Thr Gly Arg Arg Thr	
190 195 200	
cgg atg cta ccc cct gaa cag cgc aaa cgg agc aag agc ctg gac agc	796
Arg Met Leu Pro Pro Glu Gln Arg Lys Arg Ser Lys Ser Leu Asp Ser	
205 210 215	
cgc ctc cca cgg gac acc ttt gag gaa cgg gag cgc cag tcc acc aac	844
Arg Leu Pro Arg Asp Thr Phe Glu Glu Arg Glu Arg Gln Ser Thr Asn	
220 225 230	
cac tgg acc tct agc aca aaa tat gac aac cat gtg ggc act tcg aag	892
His Trp Thr Ser Ser Thr Lys Tyr Asp Asn His Val Gly Thr Ser Lys	
235 240 245	
cag cca gcc cag agc cag aac ctg agt cct ctc agt ggc ttt agc cgt	940
Gln Pro Ala Gln Ser Gln Asn Leu Ser Pro Leu Ser Gly Phe Ser Arg	
250 255 260 265	

tct cgt cag act cag gac tgg gtc ctt cag agt ttt gag gag ccg cgg	988
Ser Arg Gln Thr Gln Asp Trp Val Leu Gln Ser Phe Glu Glu Pro Arg	
270 275 280	
agg agt gca cag gac ccc acc atg ctg cag ttc aaa tca act cca gac	1036
Arg Ser Ala Gln Asp Pro Thr Met Leu Gln Phe Lys Ser Thr Pro Asp	
285 290 295	
ctc ctt cga gac cag cag gag gca gcc cca cca ggc agt gtg gac cat	1084
Leu Leu Arg Asp Gln Gln Glu Ala Ala Pro Pro Gly Ser Val Asp His	
300 305 310	
atg aag gcc acc atc tat ggc atc ctg agg gag gga agc tca gaa agt	1132
Met Lys Ala Thr Ile Tyr Gly Ile Leu Arg Glu Gly Ser Ser Glu Ser	
315 320 325	
gaa acc tct gtg agg agg aag gtt agt ttg gtg ctg gag aag atg cag	1180
Glu Thr Ser Val Arg Arg Lys Val Ser Leu Val Leu Glu Lys Met Gln	
330 335 340 345	
cct cta gtg atg gtt tct tct ggt tct act aag gcc gtg gca ggg cag	1228
Pro Leu Val Met Val Ser Ser Gly Ser Thr Lys Ala Val Ala Gly Gln	
350 355 360	
ggt gag ctt acc cga aaa gtg gag gag cta cag cga aag ctg gat gaa	1276
Gly Glu Leu Thr Arg Lys Val Glu Glu Leu Gln Arg Lys Leu Asp Glu	
365 370 375	
gag gtg aag aag cgg cag aag cta gag cca tcc caa gtt ggg ctg gag	1324
Glu Val Lys Lys Arg Gln Lys Leu Glu Pro Ser Gln Val Gly Leu Glu	
380 385 390	
cgg cag ctg gag gag aaa aca gaa gag tgc agc cga ctg cag gag ctg	1372
Arg Gln Leu Glu Glu Lys Thr Glu Glu Cys Ser Arg Leu Gln Glu Leu	
395 400 405	
ctg gag agg agg aag ggg gag gcc cag cag agc aac aag gag ctc cag	1420
Leu Glu Arg Arg Lys Gly Glu Ala Gln Gln Ser Asn Lys Glu Leu Gln	
410 415 420 425	
aac atg aag cgc ctc ttg gac cag ggt gaa gat tta cga cat ggg ctg	1468
Asn Met Lys Arg Leu Leu Asp Gln Gly Glu Asp Leu Arg His Gly Leu	
430 435 440	
gag acc cag gtg atg gag ctg cag aac aag ctg aaa cat gtc cag ggt	1516
Glu Thr Gln Val Met Glu Leu Gln Asn Lys Leu Lys His Val Gln Gly	
445 450 455	
cct gag cct gct aag gag gtg tta ctg aag gac ctg tta gag acc cgg	1564
Pro Glu Pro Ala Lys Glu Val Leu Leu Lys Asp Leu Leu Glu Thr Arg	
460 465 470	
gaa ctt ctg gaa gag gtc ttg gag ggg aaa cag cga gta gag gag cag	1612
Glu Leu Leu Glu Glu Val Leu Glu Gly Lys Gln Arg Val Glu Glu Gln	
475 480 485	
ctg agg ctg cgg gag cgg gag ttg aca gcc ctg aag ggg gcc ctg aaa	1660
Leu Arg Leu Arg Glu Arg Glu Leu Thr Ala Leu Lys Gly Ala Leu Lys	
490 495 500 505	
gag gag gta gcc tcc cgt gac cag gag gtg gaa cat gtc cgg cag cag	1708
Glu Glu Val Ala Ser Arg Asp Gln Glu Val Glu His Val Arg Gln Gln	
510 515 520	

tac cag cga gac aca gag cag ctc cgc agg agc atg caa gat gca acc	1756
Tyr Gln Arg Asp Thr Glu Gln Leu Arg Arg Ser Met Gln Asp Ala Thr	
525 530 535	
cag gac cat gca gtg ctg gag gcg gag agg cag aag atg tca gcc ctt	1804
Gln Asp His Ala Val Leu Glu Ala Glu Arg Gln Lys Met Ser Ala Leu	
540 545 550	
gtg cga ggg ctg cag agg gag ctg gag gag act tca gag gag aca ggg	1852
Val Arg Gly Leu Gln Arg Glu Leu Glu Glu Thr Ser Glu Glu Thr Gly	
555 560 565	
cgt tgg cag agt atg ttc cag aag aac aag gag gat ctt aga gcc acc	1900
Arg Trp Gln Ser Met Phe Gln Lys Asn Lys Glu Asp Leu Arg Ala Thr	
570 575 580 585	
aag cag gaa ctc ctg cag ctg cga atg gag aag gag gag atg gaa gag	1948
Lys Gln Glu Leu Leu Gln Leu Arg Met Glu Lys Glu Glu Met Glu Glu	
590 595 600	
gag ctt gga gag aag ata gag gtc ttg cag agg gaa tta gag cag gcc	1996
Glu Leu Gly Glu Lys Ile Glu Val Leu Gln Arg Glu Leu Glu Gln Ala	
605 610 615	
cga gct agt gct gga gat act cgc cag gtt gag gtg ctc aag aag gag	2044
Arg Ala Ser Ala Gly Asp Thr Arg Gln Val Glu Val Leu Lys Lys Glu	
620 625 630	
ctg ctc cgg aca cag gag gag ctt aag gaa ctg cag gca gaa cgg cag	2092
Leu Leu Arg Thr Gln Glu Glu Leu Lys Glu Leu Gln Ala Glu Arg Gln	
635 640 645	
agc cag gag gtg gct ggg cga cac cgg gac cgg gag ttg gag aag cag	2140
Ser Gln Glu Val Ala Gly Arg His Arg Asp Arg Glu Leu Glu Lys Gln	
650 655 660 665	
ctg gcg gtc ctg agg gtc gag gct gat cga ggt cgg gag ctg gaa gaa	2188
Leu Ala Val Leu Arg Val Glu Ala Asp Arg Gly Arg Glu Leu Glu Glu	
670 675 680	
cag aac ctc cag cta caa aag acc ctc cag caa ctg cga cag gac tgt	2236
Gln Asn Leu Gln Leu Gln Lys Thr Leu Gln Gln Leu Arg Gln Asp Cys	
685 690 695	
gaa gag gct tcc aag gct aag atg gtg gcc gag gca gag gca aca gtg	2284
Glu Glu Ala Ser Lys Ala Lys Met Val Ala Glu Ala Glu Ala Thr Val	
700 705 710	
ctg ggg cag cgg cgg gcc gca gtg gag acg acg ctt cgg gag acc cag	2332
Leu Gly Gln Arg Arg Ala Ala Val Glu Thr Thr Leu Arg Glu Thr Gln	
715 720 725	
gag gaa aat gac gaa ttc cgc cgg cgc atc ctg ggt ttg gag cag cag	2380
Glu Glu Asn Asp Glu Phe Arg Arg Arg Ile Leu Gly Leu Glu Gln Gln	
730 735 740 745	
ctg aag gag act cga ggt ctg gtg gat ggt ggg gaa gcg gtg gag gca	2428
Leu Lys Glu Thr Arg Gly Leu Val Asp Gly Gly Glu Ala Val Glu Ala	
750 755 760	
cga cta cgg gac aag ctg cag cgg ctg gag gca gag aaa cag cag ctg	2476
Arg Leu Arg Asp Lys Leu Gln Arg Leu Glu Ala Glu Lys Gln Gln Leu	
765 770 775	

gag gag gcc ctg aat gcg tcc cag gaa gag gag ggg agt ctg gca gca	2524
Glu Glu Ala Leu Asn Ala Ser Gln Glu Glu Glu Gly Ser Leu Ala Ala	
780 785 790	
gcc aag cgg gca ctg gag gca cgc cta gag gag gct cag cgg ggg ctg	2572
Ala Lys Arg Ala Leu Glu Ala Arg Leu Glu Glu Ala Gln Arg Gly Leu	
795 800 805	
gcc cgc ctg ggg cag gag cag cag aca ctg aac cgg gcc ctg gag gag	2620
Ala Arg Leu Gly Gln Glu Gln Gln Thr Leu Asn Arg Ala Leu Glu Glu	
810 815 820 825	
gaa ggg aag cag cgg gag gtg ctc cgg cga ggc aag gct gag ctg gag	2668
Glu Gly Lys Gln Arg Glu Val Leu Arg Arg Gly Lys Ala Glu Leu Glu	
830 835 840	
gag cag aag cgt ttg ctg gac agg act gtg gac cga ctg aac aag gag	2716
Glu Gln Lys Arg Leu Leu Asp Arg Thr Val Asp Arg Leu Asn Lys Glu	
845 850 855	
ttg gag aag atc ggg gag gac tct aag caa gcc ctg cag cag ctc cag	2764
Leu Glu Lys Ile Gly Glu Asp Ser Lys Gln Ala Leu Gln Gln Leu Gln	
860 865 870	
gcc cag ctg gag gat tat aag gaa aag gcc cgg cgg gag gtg gca gat	2812
Ala Gln Leu Glu Asp Tyr Lys Glu Lys Ala Arg Arg Glu Val Ala Asp	
875 880 885	
gcc cag cgc cag gcc aag gat tgg gcc agt gag gct gag aag acc tct	2860
Ala Gln Arg Gln Ala Lys Asp Trp Ala Ser Glu Ala Glu Lys Thr Ser	
890 895 900 905	
gga gga ctg agc cga ctt cag gat gag atc cag agg ctg cgg cag gcc	2908
Gly Gly Leu Ser Arg Leu Gln Asp Glu Ile Gln Arg Leu Arg Gln Ala	
910 915 920	
ctg cag gca tcc cag gct gag cgg gac aca gcc cgg ctg gac aaa gag	2956
Leu Gln Ala Ser Gln Ala Glu Arg Asp Thr Ala Arg Leu Asp Lys Glu	
925 930 935	
cta ctg gcc cag cga ctg cag ggg ctg gag caa gag gca gag aac aag	3004
Leu Leu Ala Gln Arg Leu Gln Gly Leu Glu Gln Glu Ala Glu Asn Lys	
940 945 950	
aag cgt tcc cag gac gac agg gcc cgg cag ctg aag ggt ctc gag gaa	3052
Lys Arg Ser Gln Asp Asp Arg Ala Arg Gln Leu Lys Gly Leu Glu Glu	
955 960 965	
aaa gtc tca cgg ctg gaa aca gag tta gat gag gag aag aac acc gtg	3100
Lys Val Ser Arg Leu Glu Thr Glu Leu Asp Glu Glu Lys Asn Thr Val	
970 975 980 985	
gag ctg cta aca gat cgg gtg aat cgt ggc cgg gac cag gtg gat cag	3148
Glu Leu Leu Thr Asp Arg Val Asn Arg Gly Arg Asp Gln Val Asp Gln	
990 995 1000	
ctg agg aca gag ctc atg cag gaa agg tct gct cgg cag gac ctg gag	3196
Leu Arg Thr Glu Leu Met Gln Glu Arg Ser Ala Arg Gln Asp Leu Glu	
1005 1010 1015	
tgt gac aaa atc tcc ttg gag aga cag aac aag gac ctg aag acc cgg	3244
Cys Asp Lys Ile Ser Leu Glu Arg Gln Asn Lys Asp Leu Lys Thr Arg	
1020 1025 1030	

ttg gcc agc tca gaa ggc ttc cag aag cct agt gcc agc ctc tct cag 3292
 Leu Ala Ser Ser Glu Gly Phe Gln Lys Pro Ser Ala Ser Leu Ser Gln
 1035 1040 1045
 ctt gag tcc cag aat cag ttg ttg cag gag cgg cta cag gct gaa gag 3340
 Leu Glu Ser Gln Asn Gln Leu Leu Gln Glu Arg Leu Gln Ala Glu Glu
 1050 1055 1060 1065
 agg gag aag aca gtt ctg cag tct acc aat cga aaa ctg gag cgg aaa 3388
 Arg Glu Lys Thr Val Leu Gln Ser Thr Asn Arg Lys Leu Glu Arg Lys
 1070 1075 1080
 gtt aaa gaa cta tcc atc cag att gaa gac gag cgg cag cat gtc aat 3436
 Val Lys Glu Leu Ser Ile Gln Ile Glu Asp Glu Arg Gln His Val Asn
 1085 1090 1095
 gac cag aaa gac cag cta agc ctg agg gtg aag gct ttg aag cgt cag 3484
 Asp Gln Lys Asp Gln Leu Ser Leu Arg Val Lys Ala Leu Lys Arg Gln
 1100 1105 1110
 gtg gat gaa gca gaa gag gaa att gag cga ctg gac ggc ctg agg aag 3532
 Val Asp Glu Ala Glu Glu Glu Ile Glu Arg Leu Asp Gly Leu Arg Lys
 1115 1120 1125
 aag gcc cag cgt gag gtg gag gag cag cat gag gtc aat gaa cag ctc 3580
 Lys Ala Gln Arg Glu Val Glu Glu Gln His Glu Val Asn Glu Gln Leu
 1130 1135 1140 1145
 cag gcc cgg atc aag tct ctg gag aag gac tcc tgg cgc aaa gct tcc 3628
 Gln Ala Arg Ile Lys Ser Leu Glu Lys Asp Ser Trp Arg Lys Ala Ser
 1150 1155 1160
 cgc tca gct gct gag tca gct ctc aaa aac gaa ggg ctg agc tca gat 3676
 Arg Ser Ala Ala Glu Ser Ala Leu Lys Asn Glu Gly Leu Ser Ser Asp
 1165 1170 1175
 gag gaa ttc gac agt gtc tac gat ccc tcg tcc att gca tca ctg ctt 3724
 Glu Glu Phe Asp Ser Val Tyr Asp Pro Ser Ser Ile Ala Ser Leu Leu
 1180 1185 1190
 acg gag agc aac cta cag acc agc tcc tgt tag ctgctgggt cctcaaggac 3775
 Thr Glu Ser Asn Leu Gln Thr Ser Ser Cys *
 1195 1200
 tcagaaacca ggctcgaggc ctatcccagc aagtgtgtgt ctgctctgcc caccctgggt 3835
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<220>
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 <222> (257)..(1921)

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2610

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220 225 230 235	
gta agt cat tct gga gag aaa gga tat aaa tgt gat ctg tgt ggc aag	1009
Val Ser His Ser Gly Glu Lys Gly Tyr Lys Cys Asp Leu Cys Gly Lys	
240 245 250	
gtc ttt agt caa aaa tca aac ctt gcg cgt cat tgg aga gtt cat act	1057
Val Phe Ser Gln Lys Ser Asn Leu Ala Arg His Trp Arg Val His Thr	
255 260 265	
gga gag aaa cca tac aaa tgt aat gaa tgt gac aga agt ttc agt cgc	1105
Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Asp Arg Ser Phe Ser Arg	
270 275 280	
aac tca tgc ctt gca cta cat cgg aga gtt cac act gga gag aaa cct	1153
Asn Ser Cys Leu Ala Leu His Arg Arg Val His Thr Gly Glu Lys Pro	
285 290 295	
tac aaa tgt tat gag tgt gac aag gtc ttc agt cga aat tca tgc ctt	1201
Tyr Lys Cys Tyr Glu Cys Asp Lys Val Phe Ser Arg Asn Ser Cys Leu	
300 305 310 315	
gca cta cat cag aaa act cat att gga gag aaa cct tac aca tgt aaa	1249
Ala Leu His Gln Lys Thr His Ile Gly Glu Lys Pro Tyr Thr Cys Lys	
320 325 330	
gag tgt ggc aaa gcc ttt agt gtg agg tca aca ctt acc aac cat cag	1297
Glu Cys Gly Lys Ala Phe Ser Val Arg Ser Thr Leu Thr Asn His Gln	
335 340 345	
gta att cat agt ggc aag aaa cct tac aaa tgc aat gaa tgt ggc aag	1345
Val Ile His Ser Gly Lys Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys	
350 355 360	
gtg ttc agt cag act tca agc ctt gca act cat cag aga att cac act	1393
Val Phe Ser Gln Thr Ser Ser Leu Ala Thr His Gln Arg Ile His Thr	
365 370 375	
ggg gag aaa cca tac aag tgt aat gaa tgt ggt aaa gtc ttc agt cag	1441
Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser Gln	
380 385 390 395	
act tca agc ctt gca agg cat tgg aga att cat act gga gag aaa cct	1489
Thr Ser Ser Leu Ala Arg His Trp Arg Ile His Thr Gly Glu Lys Pro	
400 405 410	
tac aaa tgc aat gaa tgt ggt aag gtt ttc agt tac aat tca cac ctt	1537
Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser Tyr Asn Ser His Leu	
415 420 425	
gcg agt cat cgg aga gtt cat act gga gag aaa cct tac aag tgt aat	1585
Ala Ser His Arg Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn	
430 435 440	
gag tgt ggg aaa gcc ttt agt gtg cat tcg aac tta act acc cat cag	1633
Glu Cys Gly Lys Ala Phe Ser Val His Ser Asn Leu Thr Thr His Gln	
445 450 455	
gtc atc cat act gga gag aag cct tac aaa tgt aat caa tgt ggc aaa	1681
Val Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Gln Cys Gly Lys	
460 465 470 475	
ggc ttc agt gtg cat tca agc cta act acc cat cag gtc atc cat act	1729

Gly	Phe	Ser	Val	His	Ser	Ser	Leu	Thr	Thr	His	Gln	Val	Ile	His	Thr	
				480					485					490		
gga	gaa	aaa	cct	tac	aaa	tgt	aat	gag	tgt	ggc	aaa	tcc	ttt	agt	gtg	1777
Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Val	
			495					500					505			
cgc	cca	aac	ctc	act	aga	cat	cag	ata	atc	cat	act	gga	aag	aaa	cct	1825
Arg	Pro	Asn	Leu	Thr	Arg	His	Gln	Ile	Ile	His	Thr	Gly	Lys	Lys	Pro	
		510					515					520				
tac	aaa	tgt	agt	gat	tgt	ggg	aag	tcc	ttt	agt	gtg	cgc	cca	aac	ctc	1873
Tyr	Lys	Cys	Ser	Asp	Cys	Gly	Lys	Ser	Phe	Ser	Val	Arg	Pro	Asn	Leu	
	525					530					535					
ttc	aga	cat	caa	att	atc	cat	act	aag	gag	aaa	cct	tat	aaa	aga	aat	1921
Phe	Arg	His	Gln	Ile	Ile	His	Thr	Lys	Glu	Lys	Pro	Tyr	Lys	Arg	Asn	
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acaaaacggg	cacactagtc	acccccgagg	gaggccacca	tcactgtaac	tgttggccaa											120
agctacaaaa	gaagcgaggg	aatccaaccg	agcgcagcga	cactgagaac	agcttcccct											180
gccttctgcg	gcggcagaag	tgaagtgcct	gaggaccgga	agg	atg gtg cag tcc											235
					Met Val Gln Ser											
					1											
tgc tcc gcc tac ggc tgc aag aac cgc tac gac aag gac aag ccc gtt																283
Cys Ser Ala Tyr Gly Cys Lys Asn Arg Tyr Asp Lys Asp Lys Pro Val																
5			10				15								20	
tct ttc cac aag ttt cct ctt act cga ccc agt ctt tgt aaa gaa tgg																331
Ser Phe His Lys Phe Pro Leu Thr Arg Pro Ser Leu Cys Lys Glu Trp																
		25				30								35		
gag gca gct gtc aga aga aaa aac ttt aaa ccc acc aag tat agc agt																379
Glu Ala Ala Val Arg Arg Lys Asn Phe Lys Pro Thr Lys Tyr Ser Ser																
		40				45							50			
att tgt tca gag cac ttt act cca gac tgc ttt aag aga gag tgc aac																427
Ile Cys Ser Glu His Phe Thr Pro Asp Cys Phe Lys Arg Glu Cys Asn																
	55					60							65			
aac aag tta ctg aaa gag aat gct gtg ccc aca ata ttt ctt tgt act																475
Asn Lys Leu Leu Lys Glu Asn Ala Val Pro Thr Ile Phe Leu Cys Thr																
	70					75							80			

gag cca cat gac aag aaa gaa gat ctt ctg gag cca cag gaa cag ctt	523
Glu Pro His Asp Lys Lys Glu Asp Leu Leu Glu Pro Gln Glu Gln Leu	
85 90 95 100	
ccc cca cct cct tta ccg cct cct gtt tcc cag gtt gat gct gct att	571
Pro Pro Pro Pro Leu Pro Pro Pro Val Ser Gln Val Asp Ala Ala Ile	
105 110 115	
gga tta cta atg ccg cct ctt cag acc cct gtt aat ctc tca gtt ttc	619
Gly Leu Leu Met Pro Pro Leu Gln Thr Pro Val Asn Leu Ser Val Phe	
120 125 130	
tgt gac cac aac tat act gtg gag gat aca atg cac cag cgg aaa agg	667
Cys Asp His Asn Tyr Thr Val Glu Asp Thr Met His Gln Arg Lys Arg	
135 140 145	
att cat cag cta gaa cag caa gtt gaa aaa ctc aga aag aag ctc aag	715
Ile His Gln Leu Glu Gln Gln Val Glu Lys Leu Arg Lys Lys Leu Lys	
150 155 160	
acc gca cag cag cga tgc aga agg caa gaa cgg cag ctt gaa aaa tta	763
Thr Ala Gln Gln Arg Cys Arg Arg Gln Glu Arg Gln Leu Glu Lys Leu	
165 170 175 180	
aag gag gtt gtt cac ttc cag aaa gag aaa gac gac gta tca gaa aga	811
Lys Glu Val Val His Phe Gln Lys Glu Lys Asp Asp Val Ser Glu Arg	
185 190 195	
ggg tat gtg att cta cca aat gac tac ttt gaa ata gtt gaa gta cca	859
Gly Tyr Val Ile Leu Pro Asn Asp Tyr Phe Glu Ile Val Glu Val Pro	
200 205 210	
gca taa aaaaatgaaa tgtgtattga tttctaattgg ggcaataacca catatcctcc	915
Ala *	

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 <222> (145)..(609)

<400> 945

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gcaccggctc cagcgcctgc ctctcgccct tgcttctcca gcgctccttg ctgcgaaggc	120
gggggaggcg gcggcccagc cacg atg ata cat ttc ata ttg ctc ttc agt	171
Met Ile His Phe Ile Leu Leu Phe Ser	
1 5	
cga caa ggg aaa tta ccg cta cag aaa tgg tac atc act ctc cct gat	219
Arg Gln Gly Lys Leu Arg Leu Gln Lys Trp Tyr Ile Thr Leu Pro Asp	
10 15 20 25	
aaa gag agg aag aag atc acc cgg gaa att gtt cag att att ctc tcc	267
Lys Glu Arg Lys Lys Ile Thr Arg Glu Ile Val Gln Ile Ile Leu Ser	

	30	35	40	
cgt ggt cac agg aca agc agt ttt gtt gac tgg aag gag cta aaa ctt				315
Arg Gly His Arg Thr Ser Ser Phe Val Asp Trp Lys Glu Leu Lys Leu				
	45	50	55	
gtt tat aaa agg tat gct agt tta tat ttt tgc tgt gca ata gaa aat				363
Val Tyr Lys Arg Tyr Ala Ser Leu Tyr Phe Cys Cys Ala Ile Glu Asn				
	60	65	70	
cag gac aat gag ctc ttg acg cta gag att gtg cat cgt tac gtg gag				411
Gln Asp Asn Glu Leu Leu Thr Leu Glu Ile Val His Arg Tyr Val Glu				
	75	80	85	
ctg ctg gac aaa tat ttt gga aat gtc tgt gag ctg gat att atc ttt				459
Leu Leu Asp Lys Tyr Phe Gly Asn Val Cys Glu Leu Asp Ile Ile Phe				
	90	95	100	105
aat ttt gaa aag gct tat ttc atc ctg gac gag ttt ata ata ggt ggg				507
Asn Phe Glu Lys Ala Tyr Phe Ile Leu Asp Glu Phe Ile Ile Gly Gly				
	110	115	120	
gaa att cag gaa aca tcc aag aaa att gct gtc aaa gcc att gaa gac				555
Glu Ile Gln Glu Thr Ser Lys Lys Ile Ala Val Lys Ala Ile Glu Asp				
	125	130	135	
tct gat atg tta cag gag gtc agt acg gtt tcc caa acc atg gga gaa				603
Ser Asp Met Leu Gln Glu Val Ser Thr Val Ser Gln Thr Met Gly Glu				
	140	145	150	
aga tga tgatgatgat gatgatgatg gtgttaataa ttataatatt aaccaagact				659
Arg *				
	155			
tactgagtac ttactctgtg ctgggtacag tttctaaact atttatatgt attagcttat				719
ttaatcctca caacaactcg aaaaagtagg tggtattgtt actcccactt tacagatgag				779
taaactgg				787

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 <212> DNA
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 <222> (569)..(2011)

<220>
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agcgcaccta ctacttaacc ggaccggota cttactggcc gccaggtgga agcctgcgat	120
cgagctggcc gggcctccca gcaccgccgc tctccaggct ccctttccag gactcaactt	180

2615

gac tca gga aga cag tgt aaa agt att aat ttt gaa gaa gca agt aca	1216
Asp Ser Gly Arg Gln Cys Lys Ser Ile Asn Phe Glu Glu Ala Ser Thr	
205 210 215	
gat gaa gct cag gtt ccc caa gga aat att gac cag gtt gct gtt gtg	1264
Asp Glu Ala Gln Val Pro Gln Gly Asn Ile Asp Gln Val Ala Val Val	
220 225 230	
gcc atc aat gtt ctg ttt ttt gtg act cta ttt atc ttt gcc ctt ttt	1312
Ala Ile Asn Val Leu Phe Phe Val Thr Leu Phe Ile Phe Ala Leu Phe	
235 240 245	
gaa acc atc att act cca tta aca atg gat atg tat gcc tgg act caa	1360
Glu Thr Ile Ile Thr Pro Leu Thr Met Asp Met Tyr Ala Trp Thr Gln	
250 255 260	
gaa caa gct gtg tta tat aat ggc ata ata ctt gct gct ctt ggg gtt	1408
Glu Gln Ala Val Leu Tyr Asn Gly Ile Ile Leu Ala Ala Leu Gly Val	
265 270 275 280	
gaa gcc gtt gtt att ttc tta gga gtt aag ttg ctt tcc aaa aag att	1456
Glu Ala Val Val Ile Phe Leu Gly Val Lys Leu Leu Ser Lys Lys Ile	
285 290 295	
ggc gag cgt gct att cta ctg gga gga ctc atc gtt gta tgg gtt ggc	1504
Gly Glu Arg Ala Ile Leu Leu Gly Gly Leu Ile Val Val Trp Val Gly	
300 305 310	
ttc ttt atc ttg tta cct tgg gga aat caa ttt ccc aaa ata cag tgg	1552
Phe Phe Ile Leu Leu Pro Trp Gly Asn Gln Phe Pro Lys Ile Gln Trp	
315 320 325	
gaa gat ttg cac aat aat tca atc cct aat acc aca ttt ggg gaa att	1600
Glu Asp Leu His Asn Asn Ser Ile Pro Asn Thr Thr Phe Gly Glu Ile	
330 335 340	
att att ggt ctt tgg aag tct cca atg gaa gat gac aat gaa aga cca	1648
Ile Ile Gly Leu Trp Lys Ser Pro Met Glu Asp Asp Asn Glu Arg Pro	
345 350 355 360	
act ggt tgc tcg att gaa caa gcc tgg tgc ctc tac acc ccg gtg att	1696
Thr Gly Cys Ser Ile Glu Gln Ala Trp Cys Leu Tyr Thr Pro Val Ile	
365 370 375	
cat ctg gcc cag ttc ctt aca tca gct gtg cta ata gga tta ggc tat	1744
His Leu Ala Gln Phe Leu Thr Ser Ala Val Leu Ile Gly Leu Gly Tyr	
380 385 390	
cca gtc tgc aat ctt atg tcc tat act cta tat tca aaa att cta gga	1792
Pro Val Cys Asn Leu Met Ser Tyr Thr Leu Tyr Ser Lys Ile Leu Gly	
395 400 405	
cca aaa cct cag ggt gta tac atg ggc tgg tta aca gca tct gga agt	1840
Pro Lys Pro Gln Gly Val Tyr Met Gly Trp Leu Thr Ala Ser Gly Ser	
410 415 420	
gga gcc cgg att ctt ggg cct atg ttc atc agc caa gtg tat gct cac	1888
Gly Ala Arg Ile Leu Gly Pro Met Phe Ile Ser Gln Val Tyr Ala His	
425 430 435 440	
tgg gga cca cga tgg gca ttc agc ctg gtg tgt gga ata ata gtg ctc	1936
Trp Gly Pro Arg Trp Ala Phe Ser Leu Val Cys Gly Ile Ile Val Leu	
445 450 455	

acc atc acc ctc ctg gga gtg gtt tac aaa aga ctc att gct ctt tct 1984
 Thr Ile Thr Leu Leu Gly Val Val Tyr Lys Arg Leu Ile Ala Leu Ser
 460 465 470

gta aga tat ggg agg att cag gaa taa actag ctaagactgt gatggaaaca 2036
 Val Arg Tyr Gly Arg Ile Gln Glu *
 475 480

cgaaatcgtc gacagcgaag tccctccnnn ntttccggac cgggacc 2083

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 <212> DNA
 <213> Homo sapiens

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 <222> (134) .. (3664)

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 gctgggcggt gca atg gcg gaa aga aaa gga aca gcc aaa gtg gac ttt 169
 Met Ala Glu Arg Lys Gly Thr Ala Lys Val Asp Phe
 1 5 10

ttg aag aag att gag aaa gaa atc caa cag aaa tgg gat act gag aga 217
 Leu Lys Lys Ile Glu Lys Glu Ile Gln Gln Lys Trp Asp Thr Glu Arg
 15 20 25

gtg ttt gag gtc aat gca tct aat tta gag aaa cag acc agc aag ggc 265
 Val Phe Glu Val Asn Ala Ser Asn Leu Glu Lys Gln Thr Ser Lys Gly
 30 35 40

aag tat ttt gta acc ttc cca tat cca tat atg aat gga cgc ctt cat 313
 Lys Tyr Phe Val Thr Phe Pro Tyr Pro Tyr Met Asn Gly Arg Leu His
 45 50 55 60

ttg gga cac acg ttt tct tta tcc aaa tgt gag ttt gct gta ggg tac 361
 Leu Gly His Thr Phe Ser Leu Ser Lys Cys Glu Phe Ala Val Gly Tyr
 65 70 75

cag cga ttg aaa gga aaa tgt tgt ctg ttt ccc ttt ggc ctg cac tgt 409
 Gln Arg Leu Lys Gly Lys Cys Cys Leu Phe Pro Phe Gly Leu His Cys
 80 85 90

act gga atg cct att aag gca tgt gct gat aag ttg aaa aga gaa ata 457
 Thr Gly Met Pro Ile Lys Ala Cys Ala Asp Lys Leu Lys Arg Glu Ile
 95 100 105

gag ctg tat ggt tgc ccc cct gat ttt cca gat gaa gaa gag gaa gag 505
 Glu Leu Tyr Gly Cys Pro Pro Asp Phe Pro Asp Glu Glu Glu Glu Glu
 110 115 120

gaa gaa acc agt gtt aaa aca gaa gat ata ata att aag gat aaa gct 553
 Glu Glu Thr Ser Val Lys Thr Glu Asp Ile Ile Ile Lys Asp Lys Ala
 125 130 135 140

aaa gga aaa aag agt aaa gct gct gct aaa gct gga tct tct aaa tac 601

Lys	Gly	Lys	Lys	Ser	Lys	Ala	Ala	Ala	Lys	Ala	Gly	Ser	Ser	Lys	Tyr	
				145					150					155		
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Gln	Trp	Gly	Ile	Met	Lys	Ser	Leu	Gly	Leu	Ser	Asp	Glu	Glu	Ile	Val	
			160					165					170			
aaa	ttt	tct	gaa	gca	gaa	cat	tgg	ctt	gat	tat	ttc	acg	cca	ctg	gct	697
Lys	Phe	Ser	Glu	Ala	Glu	His	Trp	Leu	Asp	Tyr	Phe	Thr	Pro	Leu	Ala	
		175					180					185				
att	cag	gat	tta	aaa	aga	atg	ggg	ttg	aag	gta	gac	tgg	cgt	cgt	tcc	745
Ile	Gln	Asp	Leu	Lys	Arg	Met	Gly	Leu	Lys	Val	Asp	Trp	Arg	Arg	Ser	
	190					195					200					
ttc	atc	acc	act	gat	gtt	aat	cct	tac	tat	gat	tca	ttt	gtc	aga	tgg	793
Phe	Ile	Thr	Thr	Asp	Val	Asn	Pro	Tyr	Tyr	Asp	Ser	Phe	Val	Arg	Trp	
205					210				215					220		
caa	ttt	tta	aca	tta	aga	gaa	aga	aac	aaa	att	aaa	ttt	ggg	aag	cgg	841
Gln	Phe	Leu	Thr	Leu	Arg	Glu	Arg	Asn	Lys	Ile	Lys	Phe	Gly	Lys	Arg	
				225				230					235			
tat	aca	att	tac	tct	ccg	aaa	gat	gga	cag	cct	tgc	atg	gat	cat	gat	889
Tyr	Thr	Ile	Tyr	Ser	Pro	Lys	Asp	Gly	Gln	Pro	Cys	Met	Asp	His	Asp	
			240					245					250			
aga	caa	act	gga	gag	ggg	gtt	gga	cct	cag	gaa	tat	act	tta	ctc	aaa	937
Arg	Gln	Thr	Gly	Glu	Gly	Val	Gly	Pro	Gln	Glu	Tyr	Thr	Leu	Leu	Lys	
		255				260						265				
ttg	aag	gtg	ctt	gag	cca	tac	cca	tct	aaa	tta	agt	ggc	ctg	aaa	ggg	985
Leu	Lys	Val	Leu	Glu	Pro	Tyr	Pro	Ser	Lys	Leu	Ser	Gly	Leu	Lys	Gly	
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Lys	Asn	Ile	Phe	Leu	Val	Ala	Ala	Thr	Leu	Arg	Pro	Glu	Thr	Met	Phe	
285					290					295				300		
ggg	cag	aca	aat	tgt	tgg	gtt	cgt	cct	gat	atg	aag	tac	att	gga	ttt	1081
Gly	Gln	Thr	Asn	Cys	Trp	Val	Arg	Pro	Asp	Met	Lys	Tyr	Ile	Gly	Phe	
			305					310						315		
gag	acg	gtg	aat	ggg	gat	ata	ttc	atc	tgt	acc	caa	aaa	gca	gcc	agg	1129
Glu	Thr	Val	Asn	Gly	Asp	Ile	Phe	Ile	Cys	Thr	Gln	Lys	Ala	Ala	Arg	
			320					325					330			
aat	atg	tca	tac	cag	ggc	ttt	acc	aaa	gac	aat	ggc	gtg	gtg	cct	gtt	1177
Asn	Met	Ser	Tyr	Gln	Gly	Phe	Thr	Lys	Asp	Asn	Gly	Val	Val	Pro	Val	
		335					340					345				
gtt	aag	gaa	tta	atg	ggg	gag	gaa	att	ctt	ggg	gca	tca	ctt	tct	gca	1225
Val	Lys	Glu	Leu	Met	Gly	Glu	Glu	Ile	Leu	Gly	Ala	Ser	Leu	Ser	Ala	
	350				355						360					
cct	tta	aca	tca	tac	aag	gtg	atc	tat	gtt	ctc	cca	atg	cta	act	att	1273
Pro	Leu	Thr	Ser	Tyr	Lys	Val	Ile	Tyr	Val	Leu	Pro	Met	Leu	Thr	Ile	
365					370					375				380		
aag	gag	gat	aaa	ggc	act	ggg	gtg	gtt	aca	agt	gtt	cct	tcc	gac	tcc	1321
Lys	Glu	Asp	Lys	Gly	Thr	Gly	Val	Val	Thr	Ser	Val	Pro	Ser	Asp	Ser	
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cct	gat	gat	att	gct	gcc	ctc	aga	gac	ttg	aag	aaa	aag	caa	gcc	tta	1369

Pro Asp Asp	Ile Ala Ala	Leu Arg Asp	Leu Lys Lys	Lys Gln Ala	Leu	
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cga gca aaa	tat gga att	aga gat gac	atg gtc ttg	cca ttt gag	ccg	1417
Arg Ala Lys	Tyr Gly Ile	Arg Asp Asp	Met Val Leu	Pro Phe Glu	Pro	
	415	420		425		
gtg cca gtc	att gaa atc	cca ggt ttt	gga aat ctt	tct gct gta	acc	1465
Val Pro Val	Ile Glu Ile	Pro Gly Phe	Gly Asn Leu	Ser Ala Val	Thr	
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att tgt gat	gag ttg aaa	att cag agc	cag aat gac	cgg gaa aaa	ctt	1513
Ile Cys Asp	Glu Leu Lys	Ile Gln Ser	Gln Asn Asp	Arg Glu Lys	Leu	
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gca gaa gca	aag gag aag	ata tat cta	aaa gga ttt	tat gag ggt	atc	1561
Ala Glu Ala	Lys Glu Lys	Ile Tyr Leu	Lys Gly Phe	Tyr Glu Gly	Ile	
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atg ttg gtg	gat gga ttt	aaa gga cag	aag gtt caa	gat gta aag	aag	1609
Met Leu Val	Asp Gly Phe	Lys Gly Gln	Lys Val Gln	Asp Val Lys	Lys	
	480	485		490		
act att cag	aaa aag atg	att gac gct	gga gat gca	ctt att tac	atg	1657
Thr Ile Gln	Lys Lys Met	Ile Asp Ala	Gly Asp Ala	Leu Ile Tyr	Met	
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gaa cca gag	aaa caa gtg	atg tcc agg	tcg tca gat	gaa tgt gtt	gtg	1705
Glu Pro Glu	Lys Gln Val	Met Ser Arg	Ser Ser Asp	Glu Cys Val	Val	
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gct ctg tgt	gac cag tgg	tac ttg gat	tat gga gaa	gag aat tgg	aag	1753
Ala Leu Cys	Asp Gln Trp	Tyr Leu Asp	Tyr Gly Glu	Glu Asn Trp	Lys	
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Lys Gln Thr	Ser Gln Cys	Leu Lys Asn	Leu Glu Thr	Phe Cys Glu	Glu	
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acc agg agg	aat ttt gaa	gcc acc tta	ggt tgg cta	caa gaa cat	gct	1849
Thr Arg Arg	Asn Phe Glu	Ala Thr Leu	Gly Trp Leu	Gln Glu His	Ala	
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tgc tca aga	act tat ggt	cta ggc act	cac ttg cct	tgg gat gag	cag	1897
Cys Ser Arg	Thr Tyr Gly	Leu Gly Thr	His Leu Pro	Trp Asp Glu	Gln	
	575	580		585		
tgg ctg att	gaa tca ctt	tct gac tcc	act att tac	atg gca ttt	tac	1945
Trp Leu Ile	Glu Ser Leu	Ser Asp Ser	Thr Ile Tyr	Met Ala Phe	Tyr	
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aca gtt gca	cac cta ttg	cag ggg ggt	aac ttg cat	gga cag gca	gag	1993
Thr Val Ala	His Leu Leu	Gln Gly Gly	Asn Leu His	Gly Gln Ala	Glu	
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tct ccg ctg	ggc att aga	ccg caa cag	atg acc aag	gaa gtt tgg	gat	2041
Ser Pro Leu	Gly Ile Arg	Pro Gln Gln	Met Thr Lys	Glu Val Trp	Asp	
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tat gtt ttc	ttc aag gag	gct cca ttt	cct aag act	cag att gca	aag	2089
Tyr Val Phe	Phe Lys Glu	Ala Pro Phe	Pro Lys Thr	Gln Ile Ala	Lys	
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gaa aaa tta	gat cag tta	aag cag gag	ttt gaa ttc	tgg tat cct	gtt	2137

Glu	Lys	Leu	Asp	Gln	Leu	Lys	Gln	Glu	Phe	Glu	Phe	Trp	Tyr	Pro	Val		
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gat	ctt	cgc	gtc	tct	ggc	aag	gat	ctt	gtt	cca	aat	cat	ctt	tca	tat		2185
Asp	Leu	Arg	Val	Ser	Gly	Lys	Asp	Leu	Val	Pro	Asn	His	Leu	Ser	Tyr		
		670				675					680						
tac	ctt	tat	aat	cat	gtg	gct	atg	tgg	ccg	gaa	caa	agt	gac	aaa	tgg		2233
Tyr	Leu	Tyr	Asn	His	Val	Ala	Met	Trp	Pro	Glu	Gln	Ser	Asp	Lys	Trp		
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Pro	Thr	Ala	Val	Arg	Ala	Asn	Gly	His	Leu	Leu	Leu	Asn	Ser	Glu	Lys		
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Met	Ser	Lys	Ser	Thr	Gly	Asn	Phe	Leu	Thr	Leu	Thr	Gln	Ala	Ile	Asp		
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Lys	Phe	Ser	Ala	Asp	Gly	Met	Arg	Leu	Ala	Leu	Ala	Asp	Ala	Gly	Asp		
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Trp	Asp	Ser	Leu	Arg	Ser	Gly	Pro	Ala	Ser	Thr	Phe	Asn	Asp	Arg	Val		
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Phe	Ala	Ser	Glu	Leu	Asn	Ala	Gly	Ile	Ile	Lys	Thr	Asp	Gln	Asn	Tyr		
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Gln	Ala	Ala	Lys	Asp	Lys	Tyr	Arg	Glu	Leu	Ala	Val	Glu	Gly	Met	His		
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Arg	Glu	Leu	Val	Phe	Arg	Phe	Ile	Glu	Val	Gln	Thr	Leu	Leu	Leu	Ala		
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cca	ttc	tgt	cca	cat	ttg	tgt	gag	cac	atc	tgg	aca	ctc	ctg	gga	aag		2761
Pro	Phe	Cys	Pro	His	Leu	Cys	Glu	His	Ile	Trp	Thr	Leu	Leu	Gly	Lys		
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cct	gac	tca	att	atg	aat	gct	tca	tgg	cct	gtg	gca	ggt	cct	gtt	aat		2809
Pro	Asp	Ser	Ile	Met	Asn	Ala	Ser	Trp	Pro	Val	Ala	Gly	Pro	Val	Asn		
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gaa	gtt	tta	ata	cac	tcc	tca	cag	tat	ctt	atg	gaa	gta	aca	cat	gac		2857
Glu	Val	Leu	Ile	His	Ser	Ser	Gln	Tyr	Leu	Met	Glu	Val	Thr	His	Asp		
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Lys His Phe Glu Ala Asn Asn Gly Lys Leu Pro Asp Asn Lys Val Ile	
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Pro Arg Ile Leu Asp Leu Gln Leu Glu Phe Asp Glu Lys Ala Val Leu	
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Cys Pro Gly Lys Pro Leu Asn Val Phe Arg Ile Glu Pro Gly Val Ser	
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Val Ser Leu Val Asn Pro Gln Pro Ser Asn Gly His Phe Ser Thr Lys	
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Met Lys Met Asn Arg Gly Ile Lys Asp Leu Ser Lys Val Lys Leu Met	
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 Asp Ser Leu Asp Glu Leu Val Ala Arg Ser Pro Gly Pro Asp Gly His
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 Pro Gln Val Gly Pro Ala Asp Pro Ala Gly Asp Phe Glu Glu Ser Ser
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 Val Gly Ser Ser Gly Asp Ser Gly Asp Asp Ser Asp Ser Glu His Gly
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 Asp Gly Thr Asp Gly Glu Asp Glu Gly Ala Ser Glu Glu Glu Asp Leu
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 Glu Asp Arg Ser Gly Ser Glu Asp Ser Glu Asp Asp Gly Glu Thr Leu
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Arg Asp Gln Ala Val Gly Thr Pro Glu Asn Cys Ala His Tyr Phe Cys	
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Leu Asp Cys Ile Val Glu Trp Ser Lys Asn Ala Asn Ser Cys Pro Val	
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Asp Arg Thr Leu Phe Lys Cys Ile Cys Ile Arg Ala Gln Phe Gly Gly	
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Lys Ile Leu Lys Lys Ile Pro Val Glu Asn Thr Lys Ala Ser Glu Glu	
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Glu Glu Asp Pro Thr Phe Cys Glu Val Cys Gly Arg Ser Asp Arg Glu	
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Asp Arg Leu Leu Leu Cys Asp Gly Cys Asp Ala Gly Tyr His Met Glu	
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Cys Leu Asp Pro Pro Leu Gln Glu Val Pro Val Asp Glu Trp Phe Cys	
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Pro Glu Cys Ala Ala Pro Gly Val Val Leu Ala Ala Asp Ala Gly Pro	
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Ser Thr Ala Arg Arg Val Gln His Thr Pro Gly Arg Leu Gly Ser Ser	
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His Ser Ser Cys Ile Pro Ser Val Leu Lys Pro Val Glu Pro Ser Leu	
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Gly Leu Leu Arg Ala Asp Ile Gly Ala Ala Ser Leu Ser Leu Phe Gly	
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Asp Pro Tyr Glu Leu Asp Pro Phe Asp Ser Ser Glu Glu Leu Ser Ala	
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Asn Pro Leu Ser Pro Leu Ser Ala Lys Arg Arg Ala Leu Ser Arg Ser	
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ccgaggcctg aggagaggag accggcgggcg gcggca atg ctg gag acc ctt cgc 174
Met Leu Glu Thr Leu Arg
1 5
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Glu Arg Leu Leu Ser Val Gln Gln Asp Phe Thr Ser Gly Leu Lys Thr
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Tyr	Glu	Asp	Thr	Trp	Ala	Ala	Leu	His	Arg	Arg	Ala	Lys	Asp	Cys	Ala	
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Gln	Val	Asp	Thr	Ala	Leu	Ala	Thr	Ser	His	Thr	Asp	Arg	Glu	Ala	Thr	
			330					335					340			
ccg	gat	ggt	ggt	gag	gac	agc	gac	tct	taa	a	ttgggacatg	ggcgttgtct				1233
Pro	Asp	Gly	Gly	Glu	Asp	Ser	Asp	Ser	*							
		345					350									
ggccacactg	gaatccagtt	ttggctgtat	gcggaattcc	acctggaaag	ccaggttggt											1293
ttatagaggt	tcttgatttt	tacataattg	ccaataatgt	gtgagaaact	taaagaacag											1353
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acatcctcat actttattag ggaacatatt ctgctctggg ctgaagccaa ctcatctcat	180
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tattgtgttg catacactgg tccagaacct taaggcagat gatctatttc atcttctgaa	300
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attctcattc tcaactctcc tcccttctct cactctcact cttgctggag gcgagccact	720
accattctgc tgagaaggaa aagcccgcga ctactttaag agattaagac aatatgcgca	780

atcctcgcct ttcctagcaa tcactattta aatctggcaa gaactgacaa cagtctttgc 840

aaga atg gaa tcc gta aaa caa agg att ttg gcc cca gga aaa gag ggg 889
Met Glu Ser Val Lys Gln Arg Ile Leu Ala Pro Gly Lys Glu Gly
1 5 10 15

cta aag aat ttt gct gga aaa tca ctc ggc cag atc tac agg gtg ctg 937
Leu Lys Asn Phe Ala Gly Lys Ser Leu Gly Gln Ile Tyr Arg Val Leu
20 25 30

gag aag aag caa gac acc ggg gag aca atc gag ctg acg gag gat ggg 985
Glu Lys Lys Gln Asp Thr Gly Glu Thr Ile Glu Leu Thr Glu Asp Gly
35 40 45

aag ccc cta gag gtg ccc gag agg aag gcg ccg ctg tgc gac tgc acg 1033
Lys Pro Leu Glu Val Pro Glu Arg Lys Ala Pro Leu Cys Asp Cys Thr
50 55 60

tgc ttc ggc ctg ccc cgc cgc tac att atc gcc atc atg agc ggc ctg 1081
Cys Phe Gly Leu Pro Arg Arg Tyr Ile Ile Ala Ile Met Ser Gly Leu
65 70 75

ggc ttc tgc atc tcc ttc ggt atc cgc tgc aac ctg ggc gtg gcc att 1129
Gly Phe Cys Ile Ser Phe Gly Ile Arg Cys Asn Leu Gly Val Ala Ile
80 85 90 95

gtg gac atg gtc aac aac agc acc atc cac cgc ggg ggc aag gtc atc 1177
Val Asp Met Val Asn Asn Ser Thr Ile His Arg Gly Gly Lys Val Ile
100 105 110

aag gag aaa gcc aaa ttc aac tgg gac ccg gaa acc gtg ggg atg atc 1225
Lys Glu Lys Ala Lys Phe Asn Trp Asp Pro Glu Thr Val Gly Met Ile
115 120 125

cac ggt tcc ttc ttt tgg ggc tac atc atc act cag att ccg gga ggc 1273
His Gly Ser Phe Phe Trp Gly Tyr Ile Ile Thr Gln Ile Pro Gly Gly
130 135 140

tac atc gcg tct cgg ctg gca gcc gac agg gtt ttc gga gct gcc ata 1321
Tyr Ile Ala Ser Arg Leu Ala Ala Asp Arg Val Phe Gly Ala Ala Ile
145 150 155

ctt ctt acc tct acc cta aat atg cta att cca tca gca gcc aga gtg 1369
Leu Leu Thr Ser Thr Leu Asn Met Leu Ile Pro Ser Ala Ala Arg Val
160 165 170 175

cat tat gga tgt gtc atc ttt gtc aga ata ctg cag gga ctt gtt gag 1417
His Tyr Gly Cys Val Ile Phe Val Arg Ile Leu Gln Gly Leu Val Glu
180 185 190

ggt gtg acc tac cca gca tgt cat ggg ata tgg agc aaa tgg gcc cca 1465
Gly Val Thr Tyr Pro Ala Cys His Gly Ile Trp Ser Lys Trp Ala Pro
195 200 205

cct cta gag agg agt aga ctg gca acc acc tcc ttt tgt ggt tcc tat 1513
Pro Leu Glu Arg Ser Arg Leu Ala Thr Thr Ser Phe Cys Gly Ser Tyr
210 215 220

gcc gga gct gtg att gca atg cct tta gct ggc att ctt gtg cag tac 1561
Ala Gly Ala Val Ile Ala Met Pro Leu Ala Gly Ile Leu Val Gln Tyr
225 230 235

act ggc tgg tct tca gtg ttt tat gtc tac gga agc ttt gga atg gtc 1609
Thr Gly Trp Ser Ser Val Phe Tyr Val Tyr Gly Ser Phe Gly Met Val

240	245	250	255	
tgg tac atg ttt tgg ctt ttg gtg tct tat gaa agt cct gca aag cat				1657
Trp Tyr Met Phe Trp Leu Leu Val Ser Tyr Glu Ser Pro Ala Lys His				
	260	265	270	
cct act att aca gat gaa gaa cgt agg tac aca gaa gaa agc att gga				1705
Pro Thr Ile Thr Asp Glu Glu Arg Arg Tyr Thr Glu Glu Ser Ile Gly				
	275	280	285	
gag agt gca aat ctt tta ggt gca atg gaa aaa ttc aag act cca tgg				1753
Glu Ser Ala Asn Leu Leu Gly Ala Met Glu Lys Phe Lys Thr Pro Trp				
	290	295	300	
agg aag ttt ttt aca tcc atg cca gtc tat gca ata att gtt gca aac				1801
Arg Lys Phe Phe Thr Ser Met Pro Val Tyr Ala Ile Ile Val Ala Asn				
	305	310	315	
ttc tgc aga agc tgg act ttt tat tta ttg ctt att agt cag cca gca				1849
Phe Cys Arg Ser Trp Thr Phe Tyr Leu Leu Leu Ile Ser Gln Pro Ala				
	320	325	330	335
tat ttt gag gaa gtc ttt gga ttt gaa att agc aag gtt ggt atg cta				1897
Tyr Phe Glu Glu Val Phe Gly Phe Glu Ile Ser Lys Val Gly Met Leu				
	340	345	350	
tct gct gtg cca cac tta gta atg aca att att gtg cct att ggg gga				1945
Ser Ala Val Pro His Leu Val Met Thr Ile Ile Val Pro Ile Gly Gly				
	355	360	365	
caa att gca gat ttt cta aga agc aag cag att ctt tca act acg aca				1993
Gln Ile Ala Asp Phe Leu Arg Ser Lys Gln Ile Leu Ser Thr Thr Thr				
	370	375	380	
gtg aga aag atc atg aat tgt ggt ggt ttt ggc atg gaa gcc aca ctg				2041
Val Arg Lys Ile Met Asn Cys Gly Gly Phe Gly Met Glu Ala Thr Leu				
	385	390	395	
ctc ctg gtc gtt ggc tat tct cat act aga ggg gta gca atc tca ttc				2089
Leu Leu Val Val Gly Tyr Ser His Thr Arg Gly Val Ala Ile Ser Phe				
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ttg gta ctt gca gtg gga ttc agt gga ttt gct ata tct ggt ttc aat				2137
Leu Val Leu Ala Val Gly Phe Ser Gly Phe Ala Ile Ser Gly Phe Asn				
	420	425	430	
gtt aac cac ttg gat atc gct cca aga tat gcc agt atc tta atg ggc				2185
Val Asn His Leu Asp Ile Ala Pro Arg Tyr Ala Ser Ile Leu Met Gly				
	435	440	445	
att tcg aat ggt gtt ggc aca ttg tca gga atg gtt tgt cct atc att				2233
Ile Ser Asn Gly Val Gly Thr Leu Ser Gly Met Val Cys Pro Ile Ile				
	450	455	460	
gtt ggt gca atg aca aag aat aag tca cgt gaa gag tgg cag tat gtc				2281
Val Gly Ala Met Thr Lys Asn Lys Ser Arg Glu Glu Trp Gln Tyr Val				
	465	470	475	
ttc ctg atc gct gcc cta gtc cac tat ggt gga gtt ata ttt tat gca				2329
Phe Leu Ile Ala Ala Leu Val His Tyr Gly Gly Val Ile Phe Tyr Ala				
	480	485	490	495
ata ttt gcc tca gga gag aaa caa ccc tgg gca gac ccg gag gaa aca				2377
Ile Phe Ala Ser Gly Glu Lys Gln Pro Trp Ala Asp Pro Glu Glu Thr				

	500	505	510	
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Ser Glu Glu Lys Cys Gly Phe Ile His Glu Asp Glu Leu Asp Glu Glu				
	515	520	525	
aca ggg gac att act caa aat tat ata aat tat ggt acc acc aag tct				2473
Thr Gly Asp Ile Thr Gln Asn Tyr Ile Asn Tyr Gly Thr Thr Lys Ser				
	530	535	540	
tat ggt gcc aca aca cag gcc aat gga ggt tgg cct agt ggt tgg gaa				2521
Tyr Gly Ala Thr Thr Gln Ala Asn Gly Gly Trp Pro Ser Gly Trp Glu				
	545	550	555	
aag aaa gag gaa ttt gta caa gga gaa gta caa gac tca cat agc tat				2569
Lys Lys Glu Glu Phe Val Gln Gly Glu Val Gln Asp Ser His Ser Tyr				
	560	565	570	575
aag gac cga gtt gat tat tca taa caaaactaat tactggattt atttttagtg				2623
Lys Asp Arg Val Asp Tyr Ser *				
	580			
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aagcatatca accaggcaag tcttgctgta aaaatgaaaa caaaacaaac ccatgagggt				2743
accatcaagt gcaatctgta aaattgtgaa gttccatcat ttccattcaa gtcattccatt				2803
cttgcatctg tgacttaaag gttgactggt caaaattgta gaaacaagta gttaccatt				2863
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2637

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Met Thr His Gly Leu Ser Ser Leu Cys Ser Gly Leu Val Ala Ser Ile
      230                      235                      240

ctg gga aca cca gcc gat gtc atc aaa agc aga ata atg aat caa cca      1002
Leu Gly Thr Pro Ala Asp Val Ile Lys Ser Arg Ile Met Asn Gln Pro
245                      250                      255                      260

cga gat aaa caa gga agg gga ctt ttg tat aaa tca tcg act gac tgc      1050
Arg Asp Lys Gln Gly Arg Gly Leu Leu Tyr Lys Ser Ser Thr Asp Cys
      265                      270                      275

ttg att cag gct gtt caa ggt gaa gga ttc atg agt cta tat aaa ggc      1098
Leu Ile Gln Ala Val Gln Gly Glu Gly Phe Met Ser Leu Tyr Lys Gly
      280                      285                      290

ttt tta cca tct tgg ctg aga atg gta aag tta ggt tta ctt cct ttg      1146
Phe Leu Pro Ser Trp Leu Arg Met Val Lys Leu Gly Leu Leu Pro Leu
      295                      300                      305

ttt ttt ttc ttt gta ctt aaa tta ctt tta att tat aag cat ttt ccc      1194
Phe Phe Phe Phe Val Leu Lys Leu Leu Leu Ile Tyr Lys His Phe Pro
      310                      315                      320

ttt tct ctt ctg gtt tga agcatg gccctgcccc ccaaatcaag gtcctttctt      1248
Phe Ser Leu Leu Val *
325                      330

tctttttttaa atcttctttt atttcctttc acttctcttc agagttatct tgccttctgt      1308

ggtagagtaa ggtaaaataa gttacatcca ttgacgaata agttgatagt cttgttataa      1368

agccagtaaa tagattttct gtaatgtaaa attttttagta tttcatttag tcatatttta      1428

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tgctttgcag atgttggg  atg aga gtc gga gcc gaa tac caa gct cgg atc      171
Met Arg Val Gly Ala Glu Tyr Gln Ala Arg Ile
      1                      5                      10

cct gaa ttt gat cca ggt gct aca aag tac aca gat aaa gac aat gga      219
Pro Glu Phe Asp Pro Gly Ala Thr Lys Tyr Thr Asp Lys Asp Asn Gly
      15                      20                      25

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ggg atg ctt gta tgg tct cca tat cac agt atc cca gat gcc aaa ttg	267
Gly Met Leu Val Trp Ser Pro Tyr His Ser Ile Pro Asp Ala Lys Leu	
30 35 40	
gat gaa tac att gca att gca aag gaa aag cat ggc tac aat gtg gaa	315
Asp Glu Tyr Ile Ala Ile Ala Lys Glu Lys His Gly Tyr Asn Val Glu	
45 50 55	
cag gca ctt ggc atg ttg ttc tgg cat aaa cat aac att gag aag tcc	363
Gln Ala Leu Gly Met Leu Phe Trp His Lys His Asn Ile Glu Lys Ser	
60 65 70 75	
ctt gct gat ctc cct aat ttc act ccc ttt ccg gat gag tgg aca gtg	411
Leu Ala Asp Leu Pro Asn Phe Thr Pro Phe Pro Asp Glu Trp Thr Val	
80 85 90	
gaa gat aaa gtc cta ttt gaa caa gcc ttt agt ttt cat gga aag agc	459
Glu Asp Lys Val Leu Phe Glu Gln Ala Phe Ser Phe His Gly Lys Ser	
95 100 105	
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Phe His Arg Ile Gln Gln Met Leu Pro Asp Lys Thr Ile Ala Ser Leu	
110 115 120	
gta aaa tat tac tat tct tgg aaa aaa act cgc tct agg aca agt ttg	555
Val Lys Tyr Tyr Tyr Ser Trp Lys Lys Thr Arg Ser Arg Thr Ser Leu	
125 130 135	
atg gat cgc cag gct cgt aaa cta gct aat aga cat aat cag ggt gac	603
Met Asp Arg Gln Ala Arg Lys Leu Ala Asn Arg His Asn Gln Gly Asp	
140 145 150 155	
agt gat gat gat gta gaa gaa aca cat cca atg gat ggg aat gat agt	651
Ser Asp Asp Asp Val Glu Glu Thr His Pro Met Asp Gly Asn Asp Ser	
160 165 170	
gat tat gat ccc aaa aaa gaa gcc aaa aaa gag ggt aat act gaa caa	699
Asp Tyr Asp Pro Lys Lys Glu Ala Lys Lys Glu Gly Asn Thr Glu Gln	
175 180 185	
cct gtc caa act agc aag att gga ctt gga aga aga gag tat cag agt	747
Pro Val Gln Thr Ser Lys Ile Gly Leu Gly Arg Arg Glu Tyr Gln Ser	
190 195 200	
tta caa cat cgc cat cat tct cag cgt tct aag tgc cgt cca cct aag	795
Leu Gln His Arg His His Ser Gln Arg Ser Lys Cys Arg Pro Pro Lys	
205 210 215	
ggc atg tat tta acc cag gaa gat gtg gta gca gtt tcc tgt agt ccc	843
Gly Met Tyr Leu Thr Gln Glu Asp Val Val Ala Val Ser Cys Ser Pro	
220 225 230 235	
aat gca gcc aac acc atc ctg agg caa ctg gac atg gag ttg atc tct	891
Asn Ala Ala Asn Thr Ile Leu Arg Gln Leu Asp Met Glu Leu Ile Ser	
240 245 250	
cta aaa cgt cag gtt cag aat gct aag caa gta aac agt gca ctt aaa	939
Leu Lys Arg Gln Val Gln Asn Ala Lys Gln Val Asn Ser Ala Leu Lys	
255 260 265	
cag aaa atg gaa ggt gga att gaa gaa ttc aaa cct cct gag tca aat	987
Gln Lys Met Glu Gly Gly Ile Glu Glu Phe Lys Pro Pro Glu Ser Asn	
270 275 280	

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Gln Lys Ile Asn Ala Arg Trp Thr Thr Glu Glu Gln Leu Leu Ala Val	
285 290 295	
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Gln Gly Val Arg Lys Tyr Gly Lys Asp Phe Gln Ala Ile Ala Asp Val	
300 305 310 315	
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Ile Gly Asn Lys Thr Val Gly Gln Val Lys Asn Phe Phe Val Asn Tyr	
320 325 330	
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Arg Arg Arg Phe Asn Leu Glu Glu Val Leu Gln Glu Trp Glu Ala Glu	
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Asn Gln Pro Pro Pro Leu Leu Arg Pro Thr Leu Pro Ala Ala Pro Ala	
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Leu His Arg Gln Pro Pro Pro Leu Gln Gln Gln Ala Arg Phe Ile Gln	
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Pro Arg Pro Thr Leu Asn Gln Pro Pro Pro Pro Leu Ile Arg Pro Ala	
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Ser Ser Leu His *	
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			Met	Pro	Gly	Thr	Gly	Val	Gln	Glu	Gly					
			1				5									
tgc	ctg	gtg	acc	agg	cag	ata	cag	cag	cca	caa	gag	ctg	ctc	tct	gct	340
Cys	Leu	Val	Thr	Arg	Gln	Ile	Gln	Gln	Pro	Gln	Glu	Leu	Leu	Ser	Ala	
10					15					20					25	
gtc	aga	aac	agt	gtg	cat	cca	ccc	caa	gag	caa	ccg	aga	ctg	gaa	ggg	388
Val	Arg	Asn	Ser	Val	His	Pro	Pro	Gln	Glu	Gln	Pro	Arg	Leu	Glu	Gly	
				30					35					40		
tct	aaa	ctt	agt	tct	tct	cca	gca	tcc	ccc	tcc	tcc	tct	ctg	caa	aac	436
Ser	Lys	Leu	Ser	Ser	Ser	Pro	Ala	Ser	Pro	Ser	Ser	Ser	Leu	Gln	Asn	
			45					50					55			
agt	act	ctt	cag	cca	gat	gcc	ttt	cca	cca	gga	ctt	ctc	cac	tca	ggg	484
Ser	Thr	Leu	Gln	Pro	Asp	Ala	Phe	Pro	Pro	Gly	Leu	Leu	His	Ser	Gly	
		60					65					70				
aac	aac	caa	ata	aca	gcg	gaa	cgg	aaa	gtc	tgt	aac	tgc	tg	agc	cag	532
Asn	Asn	Gln	Ile	Thr	Ala	Glu	Arg	Lys	Val	Cys	Asn	Cys	Cys	Ser	Gln	
	75					80					85					
gaa	tta	gaa	act	tct	ttt	acc	tat	gtg	gac	aaa	aac	atc	aac	ttg	gag	580
Glu	Leu	Glu	Thr	Ser	Phe	Thr	Tyr	Val	Asp	Lys	Asn	Ile	Asn	Leu	Glu	
90					95					100					105	

cag cgg aac cgg agc tcg cca tca gca aaa ggg cat aat cac cct ggg	628
Gln Arg Asn Arg Ser Ser Pro Ser Ala Lys Gly His Asn His Pro Gly	
110 115 120	
gag ctt ggc tgg gaa aat cca aat gag tgg tcc caa gag gct gcc ata	676
Glu Leu Gly Trp Glu Asn Pro Asn Glu Trp Ser Gln Glu Ala Ala Ile	
125 130 135	
tct ttg ata tct gaa gag gag gat gat aca agt tca gaa gcc acg tct	724
Ser Leu Ile Ser Glu Glu Glu Asp Asp Thr Ser Ser Glu Ala Thr Ser	
140 145 150	
tca ggg aag tct ata gac tat ggt ttc atc agc gcc atc ttg ttc ttg	772
Ser Gly Lys Ser Ile Asp Tyr Gly Phe Ile Ser Ala Ile Leu Phe Leu	
155 160 165	
gtc act ggg atc ctg ctc gtg atc atc tct tac atc gtc cca cgg gaa	820
Val Thr Gly Ile Leu Leu Val Ile Ile Ser Tyr Ile Val Pro Arg Glu	
170 175 180 185	
gtg act gtg gac ccc aac act gtg gca gcc cgg gag atg gag cgc ctg	868
Val Thr Val Asp Pro Asn Thr Val Ala Ala Arg Glu Met Glu Arg Leu	
190 195 200	
gag aag gag agt gcg agg ctg ggg gct cac ctg gac cgc tgt gtg att	916
Glu Lys Glu Ser Ala Arg Leu Gly Ala His Leu Asp Arg Cys Val Ile	
205 210 215	
gcg ggg ctc tgc ctc ctc acg ctg ggg ggc gtc atc ctg tcc tgc ttg	964
Ala Gly Leu Cys Leu Leu Thr Leu Gly Gly Val Ile Leu Ser Cys Leu	
220 225 230	
tta atg atg tcc atg tgg aag ggg gag ctc tat cgt cga aac aga ttt	1012
Leu Met Met Ser Met Trp Lys Gly Glu Leu Tyr Arg Arg Asn Arg Phe	
235 240 245	
gcc tct tcc aaa gag tct gca aaa ctc tat ggt tct ttc aac ttc agg	1060
Ala Ser Ser Lys Glu Ser Ala Lys Leu Tyr Gly Ser Phe Asn Phe Arg	
250 255 260 265	
atg aaa acc agc acg aat gaa aac act ctg gaa ctg tcc ttg gta gag	1108
Met Lys Thr Ser Thr Asn Glu Asn Thr Leu Glu Leu Ser Leu Val Glu	
270 275 280	
gaa gat gcg ctt gct gta cag agt taa ttctg gttgtgaata tcttgagagt	1160
Glu Asp Ala Leu Ala Val Gln Ser *	
285 290	
ctgccttggc attttataat atgaaaaaag ttaatttata aaaattcaca gtgcaattta	1220
tttgccctggc aagaaaagtt tatttcacaa accaacagcc agtaagtgtt tttgttctct	1280
atgtgtcttc tatttagaag aaaagccatg taagatgtat aagaaaccac aaccagccac	1340
acctatcctt ctgaagagct gaaggctaata taatctgtaa tggccaagaa cttctacttc	1400
gatagaaaaa tattttctaata gaccagctct acaaattatt tcttttacac aaatatatga	1460
tgttattctt tggacactag gtggtcctac acacagtagg atcaattgct aatctacttt	1520
gtgaaaaaga actaagcact aatcaataat aaggcttaca tctaattctc aaagggtgctt	1580
atccattttc ttgctaaatt atccttcttg taatttggtt aaacactaaa acatggaatt	1640

2644

	110	115	120	
gcc att ggg gct gca gaa tta gcc atg aag gat tct ggc tgg cat cct				857
Ala Ile Gly Ala Ala Glu Leu Ala Met Lys Asp Ser Gly Trp His Pro	125	130	135	
cag tca gaa gct gat caa gtg gct act ggt gtt gca att ggc atg gga				905
Gln Ser Glu Ala Asp Gln Val Ala Thr Gly Val Ala Ile Gly Met Gly	140	145	150	
atg att cct ctt gaa gtt gtt tct gaa act gct ttg aat ttt cag aca				953
Met Ile Pro Leu Glu Val Val Ser Glu Thr Ala Leu Asn Phe Gln Thr	155	160	165	
aaa ggt tac aat aaa gtt agc cca ttt ttt gtc cct aag att ctg gtc				1001
Lys Gly Tyr Asn Lys Val Ser Pro Phe Phe Val Pro Lys Ile Leu Val	170	175	180	185
aat atg gca gca ggc cag gtc agc att cga tat aaa ctc aag ggc cca				1049
Asn Met Ala Ala Gly Gln Val Ser Ile Arg Tyr Lys Leu Lys Gly Pro	190	195	200	
aat cat gca gta tcc aca gcc tgt acc aca gga gct cat gct gtg gga				1097
Asn His Ala Val Ser Thr Ala Cys Thr Thr Gly Ala His Ala Val Gly	205	210	215	
gac tca ttt aga ttt ata gcc cat ggt gat gct gat gtg atg gtg gct				1145
Asp Ser Phe Arg Phe Ile Ala His Gly Asp Ala Asp Val Met Val Ala	220	225	230	
gga ggt aca gat tct tgt att agc cct tta tct ctt gct ggg ttt tcc				1193
Gly Gly Thr Asp Ser Cys Ile Ser Pro Leu Ser Leu Ala Gly Phe Ser	235	240	245	
aga gcc cgg gct ctg agc aca aac tca gat ccc aag ttg gca tgt cga				1241
Arg Ala Arg Ala Leu Ser Thr Asn Ser Asp Pro Lys Leu Ala Cys Arg	250	255	260	265
cca ttt cat cca aag aga gat ggt ttt gta atg gga gaa ggt gca gct				1289
Pro Phe His Pro Lys Arg Asp Gly Phe Val Met Gly Glu Gly Ala Ala	270	275	280	
gtg ctg gtg ctg gaa gaa tat gaa cat gct gtt caa aga aga gcc cgg				1337
Val Leu Val Leu Glu Glu Tyr Glu His Ala Val Gln Arg Arg Ala Arg	285	290	295	
atc tat gca gaa gtt ttg ggc tat gga ctc tca ggt gat gct ggt cac				1385
Ile Tyr Ala Glu Val Leu Gly Tyr Gly Leu Ser Gly Asp Ala Gly His	300	305	310	
ata act gcc cct gat cct gaa gga gaa ggt gcc tta agg tgt atg gct				1433
Ile Thr Ala Pro Asp Pro Glu Gly Glu Gly Ala Leu Arg Cys Met Ala	315	320	325	
gct gct tta aaa gat gca ggt gtg cag cct gag gag ata tcc tat atc				1481
Ala Ala Leu Lys Asp Ala Gly Val Gln Pro Glu Glu Ile Ser Tyr Ile	330	335	340	345
aat gca cat gct act tcc aca cca ttg gga gat gct gct gaa aac aaa				1529
Asn Ala His Ala Thr Ser Thr Pro Leu Gly Asp Ala Ala Glu Asn Lys	350	355	360	
gct atc aaa cat ctc ttc aaa gac cat gca tat gcc ctt gca gtt tcc				1577
Ala Ile Lys His Leu Phe Lys Asp His Ala Tyr Ala Leu Ala Val Ser				

	365	370	375	
tca act aag gga gca aca gga cat ctg ctg gga gct gca ggg gca gtc				1625
Ser Thr Lys Gly Ala Thr Gly His Leu Leu Gly Ala Ala Gly Ala Val				
	380	385	390	
gag gca gct ttt acc aca tta gct tgt tat tat caa aaa cta cca cct				1673
Glu Ala Ala Phe Thr Thr Leu Ala Cys Tyr Tyr Gln Lys Leu Pro Pro				
	395	400	405	
act tta aac ctg gat tgt tcg gaa cca gaa ttt gat ctc aac tat gtt				1721
Thr Leu Asn Leu Asp Cys Ser Glu Pro Glu Phe Asp Leu Asn Tyr Val				
	410	415	420	425
cca cta aag gca cag gaa tgg aaa act gag aaa aga ttt att ggc ctc				1769
Pro Leu Lys Ala Gln Glu Trp Lys Thr Glu Lys Arg Phe Ile Gly Leu				
	430	435	440	
acc aat tcc ttt ggt ttt ggt ggt act aat gca aca ctt tgt att gct				1817
Thr Asn Ser Phe Gly Phe Gly Gly Thr Asn Ala Thr Leu Cys Ile Ala				
	445	450	455	
gga ctg tag aacatat aatttgtaat taaatactga tttttaaatg ctaaaaaaaaa				1873
Gly Leu *				
	460			
aaaa				1877

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 <212> DNA
 <213> Homo sapiens

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cctctagagc ggccgctgtc gttgttctga ggcccttgac cctatcctaa gaacctttaa	120
ctcggaaactc tggtgggggtg gagggcccct cttttcagcc ggtgtcttgc cttccattct	180
cccttcaccc tgctcaacac cccgaagctg gtgaaaacag cagagctgcc cccggatcgg	240
aactacgtgc tgggcgcccc cccatcatggg atc atg tgt aca ggc ttc ctc tgt	294
Met Cys Thr Gly Phe Leu Cys	
1 5	
aat ttc tcc acc gag agc aat ggc ttc tcc cag ctc ttc ccg ggg ctc	342
Asn Phe Ser Thr Glu Ser Asn Gly Phe Ser Gln Leu Phe Pro Gly Leu	
10 15 20	
cgg ccc tgg tta gcc gtg ctg gct ggc ctc ttc tac ctc ccg gtc tat	390
Arg Pro Trp Leu Ala Val Leu Ala Gly Leu Phe Tyr Leu Pro Val Tyr	
25 30 35	
cgc gac tac atc atg tcc ttt gga ctc tgt ccg gtg agc cgc cag agc	438
Arg Asp Tyr Ile Met Ser Phe Gly Leu Cys Pro Val Ser Arg Gln Ser	
40 45 50 55	

ctg gac ttc atc ctg tcc cag ccc cag ctc ggg cag gcc gtg gtc atc 486
 Leu Asp Phe Ile Leu Ser Gln Pro Gln Leu Gly Gln Ala Val Val Ile
 60 65 70

atg gtg ggg ggt gcg cac gag gcc ctg tat tca gtc ccc ggg gag cac 534
 Met Val Gly Gly Ala His Glu Ala Leu Tyr Ser Val Pro Gly Glu His
 75 80 85

tgc ctt acg ctc cag aag cgc aaa ggc ttc gtg cgc ctg gcg ctg agg 582
 Cys Leu Thr Leu Gln Lys Arg Lys Gly Phe Val Arg Leu Ala Leu Arg
 90 95 100

cac ggg gcg tcc ctg gtg ccc gtg tac tcc ttt ggg gag aat gac atc 630
 His Gly Ala Ser Leu Val Pro Val Tyr Ser Phe Gly Glu Asn Asp Ile
 105 110 115

ttt aga ctt aag gct ttt gcc aca ggc tcc tgg cag cat tgg tgc cag 678
 Phe Arg Leu Lys Ala Phe Ala Thr Gly Ser Trp Gln His Trp Cys Gln
 120 125 130 135

ctc acc ttc aag aag ctc atg ggc ttc tct cct tgc atc ttc tgg ggc 726
 Leu Thr Phe Lys Lys Leu Met Gly Phe Ser Pro Cys Ile Phe Trp Gly
 140 145 150

cgc ggt atc ttt gca acc acc acc tgg agc ctg cat ccc ttt gga tga 774
 Arg Gly Ile Phe Ala Thr Thr Thr Trp Ser Leu His Pro Phe Gly *
 155 160 165

cccatcatcc ctgtgaaagg cccacaccac cccttcaaataaatttcgttgcaggaaggg 834
 aaggaccaat tttagtgagt gtcacaccgt ttggaatgac agtggtggag actctcttct 894
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 <222> (59) .. (850)

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 atg gga gat atc cca gtc gtg ggc ctc agc tcc tgg aag gct tct cca 106
 Met Gly Asp Ile Pro Val Val Gly Leu Ser Ser Trp Lys Ala Ser Pro
 1 5 10 15

ggg aaa gtg acc gag gca gtg aaa gag gcc att gac gca ggg tac cgg 154
 Gly Lys Val Thr Glu Ala Val Lys Glu Ala Ile Asp Ala Gly Tyr Arg
 20 25 30

cac ttc gac tgt gct tac ttt tac cac aat gag agg gag gtt gga gca 202
 His Phe Asp Cys Ala Tyr Phe Tyr His Asn Glu Arg Glu Val Gly Ala
 35 40 45

ggg atc cgt tgc aag atc aag gaa ggc gct gta aga cgg gag gat ctg 250
 Gly Ile Arg Cys Lys Ile Lys Glu Gly Ala Val Arg Arg Glu Asp Leu
 50 55 60

ctc att gcc act aag ctg tgg tgc acc tgc cat aag aag tcc ttg gtg	298
Leu Ile Ala Thr Lys Leu Trp Cys Thr Cys His Lys Lys Ser Leu Val	
65 70 75 80	
gaa aca gca tgc aga aag agt ctc aag gcc ttg aag ctg aac tat ttg	346
Glu Thr Ala Cys Arg Lys Ser Leu Lys Ala Leu Lys Leu Asn Tyr Leu	
85 90 95	
gac ctc tac ctc ata cac tgg ccc atg ggt ttc aag cct cct cat cca	394
Asp Leu Tyr Leu Ile His Trp Pro Met Gly Phe Lys Pro Pro His Pro	
100 105 110	
gaa tgg atc atg agc tgc agt gaa ctt tcc ttc tgc ctc tca cat cct	442
Glu Trp Ile Met Ser Cys Ser Glu Leu Ser Phe Cys Leu Ser His Pro	
115 120 125	
cga gtg cag gac ttg cct ctg gac gag agc aac atg gtt att ccc agt	490
Arg Val Gln Asp Leu Pro Leu Asp Glu Ser Asn Met Val Ile Pro Ser	
130 135 140	
gac acg gac ttc ctg gac acg tgg gag gcc atg gag gac ctg gtg atc	538
Asp Thr Asp Phe Leu Asp Thr Trp Glu Ala Met Glu Asp Leu Val Ile	
145 150 155 160	
acc ggg ctg gtg aag aac atc ggg gtg tca aac ttc aac cat gaa cag	586
Thr Gly Leu Val Lys Asn Ile Gly Val Ser Asn Phe Asn His Glu Gln	
165 170 175	
ctt gag agg ctt ttg aat aag cct ggg ttg agg ttc aag cca cta acc	634
Leu Glu Arg Leu Leu Asn Lys Pro Gly Leu Arg Phe Lys Pro Leu Thr	
180 185 190	
aac cag att ttg atc cga ttt caa atc cag agg aat gtg ata gtg atc	682
Asn Gln Ile Leu Ile Arg Phe Gln Ile Gln Arg Asn Val Ile Val Ile	
195 200 205	
ccc gga tct atc acc cca agt cac att aaa gag aat atc cag gtg ttt	730
Pro Gly Ser Ile Thr Pro Ser His Ile Lys Glu Asn Ile Gln Val Phe	
210 215 220	
gat ttt gaa tta aca cag cac gat atg gat aac atc ctc agc cta aac	778
Asp Phe Glu Leu Thr Gln His Asp Met Asp Asn Ile Leu Ser Leu Asn	
225 230 235 240	
agg aat ctc cga ctg gcc atg ttc ccc ata act aaa aat cac aaa gac	826
Arg Asn Leu Arg Leu Ala Met Phe Pro Ile Thr Lys Asn His Lys Asp	
245 250 255	
tat cct ttc cac ata gaa tac tga ggacccagaa caacgacagc ggccgctcta	880
Tyr Pro Phe His Ile Glu Tyr *	
260	
gaggatccaa gcttacgtac gcgtgcatgc ga	912

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<400> 958

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cctgagaggg acgcgtgccg cggagccagg cttactacgt gacccggaca ccaggcatac      120
gctaggggca gtcagctgtg ccttctcttt cggagttgtt ccgtgctccc acgtgcttcc      180
ccttctccac tggctgggat cccccgggct cggggcgcag taataatttt tcacc atg      238
                                     Met
                                     1

cat cgg aaa aag gtg gat aac cga atc cgg att ctc att gag aat gga      286
His Arg Lys Lys Val Asp Asn Arg Ile Arg Ile Leu Ile Glu Asn Gly
          5                      10                      15

gta gct gag cgg caa aga tct ctc ttt gtt gta gtt ggg gat cga gga      334
Val Ala Glu Arg Gln Arg Ser Leu Phe Val Val Val Gly Asp Arg Gly
          20                      25                      30

aaa gat cag gtg gta ata ctt cat cac atg tta tcc aaa gca act gtg      382
Lys Asp Gln Val Val Ile Leu His His Met Leu Ser Lys Ala Thr Val
          35                      40                      45

aag gct cgg cct tca gtg ctg tgg tgt tat aag aaa gag ctg ggg ttt      430
Lys Ala Arg Pro Ser Val Leu Trp Cys Tyr Lys Lys Glu Leu Gly Phe
          50                      55                      60                      65

agc agt cac cgg aag aaa aga atg cga cag ctg cag aag aaa ata aag      478
Ser Ser His Arg Lys Lys Arg Met Arg Gln Leu Gln Lys Lys Ile Lys
          70                      75                      80

aat gga aca ctg aac ata aag cag gac gac ccc ttt gaa ctc ttc ata      526
Asn Gly Thr Leu Asn Ile Lys Gln Asp Asp Pro Phe Glu Leu Phe Ile
          85                      90                      95

gca gcc aca aac att cgc tac tgc tac tac aac gag acc cac aag atc      574
Ala Ala Thr Asn Ile Arg Tyr Cys Tyr Tyr Asn Glu Thr His Lys Ile
          100                     105                     110

ctg ggc aat acc ttc ggc atg tgt gtg ctg cag gat ttt gaa gcc tta      622
Leu Gly Asn Thr Phe Gly Met Cys Val Leu Gln Asp Phe Glu Ala Leu
          115                     120                     125

act cca aac ttg ctg gcc agg act gta gaa aca gtg gaa ggt ggt ggg      670
Thr Pro Asn Leu Leu Ala Arg Thr Val Glu Thr Val Glu Gly Gly Gly
          130                     135                     140                     145

cta gtg gtc atc ctc cta cgg acc atg aac tca ctc aag caa ttg tac      718
Leu Val Val Ile Leu Leu Arg Thr Met Asn Ser Leu Lys Gln Leu Tyr
          150                     155                     160

aca gtg act atg gat gtg cat tcc agg tac aga act gag gcc cat cag      766
Thr Val Thr Met Asp Val His Ser Arg Tyr Arg Thr Glu Ala His Gln
          165                     170                     175

gat gtg gtg gga aga ttt aat gaa agg ttt att ctg tct ctg gcc tct      814
Asp Val Val Gly Arg Phe Asn Glu Arg Phe Ile Leu Ser Leu Ala Ser
          180                     185                     190

tgt aag aag tgt ctc gtc att gat gac cag ctc aac atc ctg ccc atc      862
Cys Lys Lys Cys Leu Val Ile Asp Asp Gln Leu Asn Ile Leu Pro Ile
  
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195	200	205	
tcc tcc cac gtt gcc acc atg gag gcc ctg cct ccc cag act ccg gat			910
Ser Ser His Val Ala Thr Met Glu Ala Leu Pro Pro Gln Thr Pro Asp			
210	215	220	225
gag agt ctt ggt cct tct gat ctg gag ctg agg gag ttg aag gag agc			958
Glu Ser Leu Gly Pro Ser Asp Leu Glu Leu Arg Glu Leu Lys Glu Ser			
	230	235	240
ttg cag gac acc cag cct gtg ggt gtg ttg gtg gac tgc tgt aag act			1006
Leu Gln Asp Thr Gln Pro Val Gly Val Leu Val Asp Cys Cys Lys Thr			
	245	250	255
cta gac cag gcc aaa gct gtc ttg aaa ttt atc gag ggc atc tct gaa			1054
Leu Asp Gln Ala Lys Ala Val Leu Lys Phe Ile Glu Gly Ile Ser Glu			
	260	265	270
aag acc ctg agg agt act gtt gca ctc aca gct gct cga gga cgg gga			1102
Lys Thr Leu Arg Ser Thr Val Ala Leu Thr Ala Ala Arg Gly Arg Gly			
	275	280	285
aaa tct gca gcc ctg gga ttg gcg att gct ggg gcg gtg gca ttt ggg			1150
Lys Ser Ala Ala Leu Gly Leu Ala Ile Ala Gly Ala Val Ala Phe Gly			
	290	295	300
tac tcc aat atc ttt gtt acc tcc cca agc cct gat aac ctc cat act			1198
Tyr Ser Asn Ile Phe Val Thr Ser Pro Ser Pro Asp Asn Leu His Thr			
	310	315	320
ctg ttt gaa ttt gta ttt aaa gga ttt gat gct ctg caa tat cag gaa			1246
Leu Phe Glu Phe Val Phe Lys Gly Phe Asp Ala Leu Gln Tyr Gln Glu			
	325	330	335
cat ctg gat tat gag att atc cag tct cta aat cct gaa ttt aac aaa			1294
His Leu Asp Tyr Glu Ile Ile Gln Ser Leu Asn Pro Glu Phe Asn Lys			
	340	345	350
gca gtg atc aga gtg aat gta ttt cga gaa cac agg cag act att cag			1342
Ala Val Ile Arg Val Asn Val Phe Arg Glu His Arg Gln Thr Ile Gln			
	355	360	365
tat ata cat cct gca gat gct gtg aag ctg ggc cag gct gaa cta gtt			1390
Tyr Ile His Pro Ala Asp Ala Val Lys Leu Gly Gln Ala Glu Leu Val			
	370	375	380
gtg att gat gaa gct gcc gcc atc ccc ctc ccc ttg gtg aag agc cta			1438
Val Ile Asp Glu Ala Ala Ala Ile Pro Leu Pro Leu Val Lys Ser Leu			
	390	395	400
ctt ggc ccc tac ctt gtt ttc atg gca tcc acc atc aat ggc tat gag			1486
Leu Gly Pro Tyr Leu Val Phe Met Ala Ser Thr Ile Asn Gly Tyr Glu			
	405	410	415
ggc act ggc cgg tca ctg tcc ctc aag cta att cag cag ctc cgt caa			1534
Gly Thr Gly Arg Ser Leu Ser Leu Lys Leu Ile Gln Gln Leu Arg Gln			
	420	425	430
cag agc gcc cag agc cag gtc agc acc act gct gag aat aag acc acg			1582
Gln Ser Ala Gln Ser Gln Val Ser Thr Thr Ala Glu Asn Lys Thr Thr			
	435	440	445
acg aca gcc aga ttg gca tca gcg cgg aca ctg cat gag gtt tcc ctc			1630
Thr Thr Ala Arg Leu Ala Ser Ala Arg Thr Leu His Glu Val Ser Leu			

450	455	460	465	
cag gag tca atc cga tac gcc cct ggg gat gca gtg gag aag tgg ctg				1678
Gln Glu Ser Ile Arg Tyr Ala Pro Gly Asp Ala Val Glu Lys Trp Leu				
	470	475	480	
aat gac ttg ctg tgc ctg gat tgc ctc aac atc act cgg ata gtc tca				1726
Asn Asp Leu Leu Cys Leu Asp Cys Leu Asn Ile Thr Arg Ile Val Ser				
	485	490	495	
ggc tgc ccc ttg cct gaa gct tgt gaa ctg tac tat gtt aat aga gat				1774
Gly Cys Pro Leu Pro Glu Ala Cys Glu Leu Tyr Tyr Val Asn Arg Asp				
	500	505	510	
acc ctc ttt tgc tac cac aag gcc tct gaa gtt ttc ctc caa cgg ctt				1822
Thr Leu Phe Cys Tyr His Lys Ala Ser Glu Val Phe Leu Gln Arg Leu				
	515	520	525	
atg gcc ctc tac gtg gct tct cac tac aag aac tct ccc aat gat ctc				1870
Met Ala Leu Tyr Val Ala Ser His Tyr Lys Asn Ser Pro Asn Asp Leu				
	530	535	540	545
cag atg ctc tcc gat gca cct gct cac cat ctc ttc tgc ctt ctg cct				1918
Gln Met Leu Ser Asp Ala Pro Ala His His Leu Phe Cys Leu Leu Pro				
	550	555	560	
cct gtg ccc ccc acc cag aat gcc ctt cca gaa gtg ctt gct gtt atc				1966
Pro Val Pro Pro Thr Gln Asn Ala Leu Pro Glu Val Leu Ala Val Ile				
	565	570	575	
cag gtg tgc ctt gaa ggg gag att tct cgc cag tcc atc ttg aac agt				2014
Gln Val Cys Leu Glu Gly Glu Ile Ser Arg Gln Ser Ile Leu Asn Ser				
	580	585	590	
ctg tct cga ggc aag aag gct tca ggg gac ctg att cca tgg aca gtg				2062
Leu Ser Arg Gly Lys Lys Ala Ser Gly Asp Leu Ile Pro Trp Thr Val				
	595	600	605	
tca gaa cag ttc caa gat cca gac ttt ggt ggt ctg tct ggt gga agg				2110
Ser Glu Gln Phe Gln Asp Pro Asp Phe Gly Gly Leu Ser Gly Gly Arg				
	610	615	620	625
gtc gtt cgc att gct gtt cac cca gat tat caa ggg atg ggc tat ggc				2158
Val Val Arg Ile Ala Val His Pro Asp Tyr Gln Gly Met Gly Tyr Gly				
	630	635	640	
agc cgt gct ctg cag ctg ctg cag atg tac tat gaa ggc agg ttt cct				2206
Ser Arg Ala Leu Gln Leu Leu Gln Met Tyr Tyr Glu Gly Arg Phe Pro				
	645	650	655	
tgt ctg gag gaa aag gtc ctt gag aca cca cag gaa att cac acc gta				2254
Cys Leu Glu Glu Lys Val Leu Glu Thr Pro Gln Glu Ile His Thr Val				
	660	665	670	
agc agc gag gct gtc agc ttg ttg gaa gag gtc atc act ccc cgg aag				2302
Ser Ser Glu Ala Val Ser Leu Leu Glu Glu Val Ile Thr Pro Arg Lys				
	675	680	685	
gac ctg cct cct tta ctc ctc aaa ttg aat gag agg cct gcc gaa cgc				2350
Asp Leu Pro Pro Leu Leu Leu Lys Leu Asn Glu Arg Pro Ala Glu Arg				
	690	695	700	705
ctg gat tac ctg ggt gtt tcc tat ggc ttg acc ccc agg ctc ctc aag				2398
Leu Asp Tyr Leu Gly Val Ser Tyr Gly Leu Thr Pro Arg Leu Leu Lys				

				710				715				720							
ttc	tgg	aaa	cga	gct	gga	ttt	gtt	cct	gtt	tat	ctg	aga	cag	acc	ccg	2446			
Phe	Trp	Lys	Arg	Ala	Gly	Phe	Val	Pro	Val	Tyr	Leu	Arg	Gln	Thr	Pro				
				725				730				735							
aat	gac	ctg	acc	gga	gag	cac	tcg	tgc	atc	atg	ctg	aag	acg	ctc	act	2494			
Asn	Asp	Leu	Thr	Gly	Glu	His	Ser	Cys	Ile	Met	Leu	Lys	Thr	Leu	Thr				
				740				745				750							
gat	gag	gat	gag	gct	gac	cag	gga	ggc	tgg	ctt	gca	gcc	ttc	tgg	aaa	2542			
Asp	Glu	Asp	Glu	Ala	Asp	Gln	Gly	Gly	Trp	Leu	Ala	Ala	Phe	Trp	Lys				
				755				760				765							
gat	ttc	cga	cgg	cgg	ttc	cta	gcc	ttg	ctc	tcc	tac	cag	ttc	agt	acc	2590			
Asp	Phe	Arg	Arg	Arg	Phe	Leu	Ala	Leu	Leu	Ser	Tyr	Gln	Phe	Ser	Thr				
				770				775				780				785			
ttc	tct	cct	tcc	ctg	gct	ctg	aac	atc	att	cag	aac	agg	aac	atg	ggg	2638			
Phe	Ser	Pro	Ser	Leu	Ala	Leu	Asn	Ile	Ile	Gln	Asn	Arg	Asn	Met	Gly				
				790				795				800							
aag	cca	gcc	cag	cct	gcc	ctg	agc	cgg	gag	gag	ctg	gaa	gca	ctc	ttc	2686			
Lys	Pro	Ala	Gln	Pro	Ala	Leu	Ser	Arg	Glu	Glu	Leu	Glu	Ala	Leu	Phe				
				805				810				815							
ctc	ccc	tat	gac	ctg	aag	cgg	ctg	gag	atg	tat	tca	cgg	aat	atg	gtg	2734			
Leu	Pro	Tyr	Asp	Leu	Lys	Arg	Leu	Glu	Met	Tyr	Ser	Arg	Asn	Met	Val				
				820				825				830							
gac	tat	cac	ctc	atc	atg	gac	atg	atc	ccg	gcc	atc	tct	cgc	atc	tat	2782			
Asp	Tyr	His	Leu	Ile	Met	Asp	Met	Ile	Pro	Ala	Ile	Ser	Arg	Ile	Tyr				
				835				840				845							
ttc	ctg	aac	cag	ctg	ggg	gac	ctg	gcc	ctg	tct	gcg	gct	cag	tcg	gct	2830			
Phe	Leu	Asn	Gln	Leu	Gly	Asp	Leu	Ala	Leu	Ser	Ala	Ala	Gln	Ser	Ala				
				850				855				860				865			
ctt	ctc	ttg	ggg	att	ggc	ctg	cag	cat	aag	tct	gtg	gac	cag	ctg	gaa	2878			
Leu	Leu	Leu	Gly	Ile	Gly	Leu	Gln	His	Lys	Ser	Val	Asp	Gln	Leu	Glu				
				870				875				880							
aag	gag	att	gag	ctg	ccc	tcg	ggc	cag	ttg	atg	gga	ctt	ttc	aac	cgg	2926			
Lys	Glu	Ile	Glu	Leu	Pro	Ser	Gly	Gln	Leu	Met	Gly	Leu	Phe	Asn	Arg				
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atc	atc	cgc	aaa	gtt	gtg	aag	cta	ttt	aat	gaa	gtt	cag	gaa	aag	gcc	2974			
Ile	Ile	Arg	Lys	Val	Val	Lys	Leu	Phe	Asn	Glu	Val	Gln	Glu	Lys	Ala				
				900				905				910							
att	gag	gag	cag	atg	gtg	gca	gcg	aag	gat	gtg	gtc	atg	gag	ccc	acg	3022			
Ile	Glu	Glu	Gln	Met	Val	Ala	Ala	Lys	Asp	Val	Val	Met	Glu	Pro	Thr				
				915				920				925							
atg	aag	acc	ctc	agt	gac	gac	cta	gat	gaa	gca	gca	aag	gaa	ttt	cag	3070			
Met	Lys	Thr	Leu	Ser	Asp	Asp	Leu	Asp	Glu	Ala	Ala	Lys	Glu	Phe	Gln				
				930				935				940				945			
gag	aaa	cac	aag	aag	gaa	gta	ggg	aag	ctg	aag	agc	atg	gac	ctc	tct	3118			
Glu	Lys																		

965

970

975

aaa gct ggg ccg aac gcc tcg atc atc agc ctg aaa agt gac aag aaa 3214
 Lys Ala Gly Pro Asn Ala Ser Ile Ile Ser Leu Lys Ser Asp Lys Lys
 980 985 990
 agg aag tta gag gcc aaa caa gaa ccc aaa cag agc aag aag ttg aag 3262
 Arg Lys Leu Glu Ala Lys Gln Glu Pro Lys Gln Ser Lys Lys Leu Lys
 995 1000 1005
 aac aga gag aca aag aac aaa aaa gat atg aaa ctg aag cgg aag aaa 3310
 Asn Arg Glu Thr Lys Asn Lys Lys Asp Met Lys Leu Lys Arg Lys Lys
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 <213> Homo sapiens

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 <222> (31)..(2238)

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 gct gcg gcg ccc gag tgc cgg ctt ctc ccc tac gcg cta cac aag tgg 99
 Ala Ala Ala Pro Glu Cys Arg Leu Leu Pro Tyr Ala Leu His Lys Trp
 10 15 20
 agc tcc ttt tcc tcc acc tac ctt ccc gag aac att tta gtg gac aaa 147
 Ser Ser Phe Ser Ser Thr Tyr Leu Pro Glu Asn Ile Leu Val Asp Lys
 25 30 35
 cca aat gac caa tct tca aga tgg tct tca gag agc aac tat cct ccc 195
 Pro Asn Asp Gln Ser Ser Arg Trp Ser Ser Glu Ser Asn Tyr Pro Pro
 40 45 50 55
 cag tac ttg att cta aag ctc gaa agg cct gct ata gtt cag aat atc 243
 Gln Tyr Leu Ile Leu Lys Leu Glu Arg Pro Ala Ile Val Gln Asn Ile
 60 65 70
 aca ttt gga aaa tat gag aaa act cat gtt tgc aat ttg aag aaa ttt 291
 Thr Phe Gly Lys Tyr Glu Lys Thr His Val Cys Asn Leu Lys Lys Phe
 75 80 85
 aaa gtc ttt ggt gga atg aat gaa gaa aat atg aca gag ctg ttg tcc 339
 Lys Val Phe Gly Gly Met Asn Glu Glu Asn Met Thr Glu Leu Leu Ser
 90 95 100
 agt ggc tta aag aat gat tat aac aaa gaa aca ttc acc ttg aag cat 387
 Ser Gly Leu Lys Asn Asp Tyr Asn Lys Glu Thr Phe Thr Leu Lys His
 105 110 115
 aaa att gat gaa cag atg ttc cct tgt cga ttc att aaa ata gtt cca 435
 Lys Ile Asp Glu Gln Met Phe Pro Cys Arg Phe Ile Lys Ile Val Pro
 120 125 130 135

ctc ttg tcc tgg gga ccc agc ttt aac ttt agc atc tgg tat gtt gaa	483
Leu Leu Ser Trp Gly Pro Ser Phe Asn Phe Ser Ile Trp Tyr Val Glu	
140 145 150	
ctt agt ggc att gat gat cct gat ata gta caa cct tgt ctc aac tgg	531
Leu Ser Gly Ile Asp Asp Pro Asp Ile Val Gln Pro Cys Leu Asn Trp	
155 160 165	
tat agc aag tac cgt gaa cag gaa gct att cgc ctt tgc cta aaa cac	579
Tyr Ser Lys Tyr Arg Glu Gln Glu Ala Ile Arg Leu Cys Leu Lys His	
170 175 180	
ttc aga caa cac aac tat aca gaa gct ttt gag tca ctg caa aag aaa	627
Phe Arg Gln His Asn Tyr Thr Glu Ala Phe Glu Ser Leu Gln Lys Lys	
185 190 195	
acc aag att gca ctg gaa cat ccc atg tca aca gat att cat gac aag	675
Thr Lys Ile Ala Leu Glu His Pro Met Ser Thr Asp Ile His Asp Lys	
200 205 210 215	
ctg gtg ttg aag ggt gat ttt gat gct tgc gaa gag ttg att gaa aag	723
Leu Val Leu Lys Gly Asp Phe Asp Ala Cys Glu Glu Leu Ile Glu Lys	
220 225 230	
gct gta aat gat ggc ttg ttc aat cag tat atc agt caa cag gaa tat	771
Ala Val Asn Asp Gly Leu Phe Asn Gln Tyr Ile Ser Gln Gln Glu Tyr	
235 240 245	
aag cca cga tgg agt caa atc att ccc aaa agt acc aaa ggt gat ggg	819
Lys Pro Arg Trp Ser Gln Ile Ile Pro Lys Ser Thr Lys Gly Asp Gly	
250 255 260	
gaa gat aac cgt cca gga atg aga gga ggc cat cag atg gtt att gat	867
Glu Asp Asn Arg Pro Gly Met Arg Gly Gly His Gln Met Val Ile Asp	
265 270 275	
gtt caa aca gag act gtt tat ttg ttt ggt ggc tgg gat gga aca caa	915
Val Gln Thr Glu Thr Val Tyr Leu Phe Gly Gly Trp Asp Gly Thr Gln	
280 285 290 295	
gat ctt gct gac ttc tgg gcg tac agt gtg aag gag aac cag tgg aca	963
Asp Leu Ala Asp Phe Trp Ala Tyr Ser Val Lys Glu Asn Gln Trp Thr	
300 305 310	
tgt atc tct aga gac act gaa aaa gag aat ggt cct agt gcc aga tcg	1011
Cys Ile Ser Arg Asp Thr Glu Lys Glu Asn Gly Pro Ser Ala Arg Ser	
315 320 325	
tgt cat aaa atg tgc att gat att caa cgg agg caa atc tac aca ttg	1059
Cys His Lys Met Cys Ile Asp Ile Gln Arg Arg Gln Ile Tyr Thr Leu	
330 335 340	
ggg cgt tac ttg gat tcc tct gtg agg aac agc aaa tct ctg aaa agt	1107
Gly Arg Tyr Leu Asp Ser Ser Val Arg Asn Ser Lys Ser Leu Lys Ser	
345 350 355	
gac ttc tat cgt tat gac att gat aca aac aca tgg atg tta cta agt	1155
Asp Phe Tyr Arg Tyr Asp Ile Asp Thr Asn Thr Trp Met Leu Leu Ser	
360 365 370 375	
gag gat act gct gct gat gga ggg ccg aaa ttg gtg ttt gat cat cag	1203
Glu Asp Thr Ala Ala Asp Gly Gly Pro Lys Leu Val Phe Asp His Gln	
380 385 390	

atg tgt atg gac tca gaa aaa cat atg atc tac act ttt ggt ggt aga	1251
Met Cys Met Asp Ser Glu Lys His Met Ile Tyr Thr Phe Gly Gly Arg	
395 400 405	
att ttg act tgt aat ggc agc gta gat gac agc aga gcc agt gaa cca	1299
Ile Leu Thr Cys Asn Gly Ser Val Asp Asp Ser Arg Ala Ser Glu Pro	
410 415 420	
caa ttc agt ggc ttg ttt gct ttc aac tgt caa tgt caa acc tgg aaa	1347
Gln Phe Ser Gly Leu Phe Ala Phe Asn Cys Gln Cys Gln Thr Trp Lys	
425 430 435	
ctt ctt cga gag gac tcc tgt aat gct ggg cct gag gac atc cag tct	1395
Leu Leu Arg Glu Asp Ser Cys Asn Ala Gly Pro Glu Asp Ile Gln Ser	
440 445 450 455	
cga ata gga cac tgc atg tta ttc cac tca aaa aat cgt tgc tta tat	1443
Arg Ile Gly His Cys Met Leu Phe His Ser Lys Asn Arg Cys Leu Tyr	
460 465 470	
gta ttt ggt ggc cag cga tca aag acc tat ttg aat gat ttc ttt agt	1491
Val Phe Gly Gly Gln Arg Ser Lys Thr Tyr Leu Asn Asp Phe Phe Ser	
475 480 485	
tat gat gtg gac tct gat cat gta gac ata ata tca gat ggc acc aag	1539
Tyr Asp Val Asp Ser Asp His Val Asp Ile Ile Ser Asp Gly Thr Lys	
490 495 500	
aaa gac tct ggg atg gtt cca atg aca gga ttt aca cag aga gca act	1587
Lys Asp Ser Gly Met Val Pro Met Thr Gly Phe Thr Gln Arg Ala Thr	
505 510 515	
att gat cca gaa ctg aat gaa ata cac gtc tta tct gga ctc agc aaa	1635
Ile Asp Pro Glu Leu Asn Glu Ile His Val Leu Ser Gly Leu Ser Lys	
520 525 530 535	
gat aag gaa aag agg gaa gaa aat gtt aga aat tca ttc tgg att tat	1683
Asp Lys Glu Lys Arg Glu Glu Asn Val Arg Asn Ser Phe Trp Ile Tyr	
540 545 550	
gac att gtg agg aat agt tgg tct tgt gtc tat aag aat gat caa gct	1731
Asp Ile Val Arg Asn Ser Trp Ser Cys Val Tyr Lys Asn Asp Gln Ala	
555 560 565	
gca aag gat aat cca act aaa agt ctt cag gaa gaa gaa cca tgt cca	1779
Ala Lys Asp Asn Pro Thr Lys Ser Leu Gln Glu Glu Glu Pro Cys Pro	
570 575 580	
agg ttt gcc cat cag ctt gta tac gat gag cta cac aag gtt cat tac	1827
Arg Phe Ala His Gln Leu Val Tyr Asp Glu Leu His Lys Val His Tyr	
585 590 595	
tta ttt ggt ggg aat cca gga aaa tct tgc tct cca aag atg aga tta	1875
Leu Phe Gly Gly Asn Pro Gly Lys Ser Cys Ser Pro Lys Met Arg Leu	
600 605 610 615	
gat gac ttc tgg tca ctg aag ttg tgt aga cct tca aaa gat tat tta	1923
Asp Asp Phe Trp Ser Leu Lys Leu Cys Arg Pro Ser Lys Asp Tyr Leu	
620 625 630	
ctg agg cat tgc aag tac ctc ata aga aaa cac agg ttt gaa gaa aag	1971
Leu Arg His Cys Lys Tyr Leu Ile Arg Lys His Arg Phe Glu Glu Lys	
635 640 645	

gcc caa gtg gat ccc ctt agt gct ctg aaa tat tta caa aat gat ctt 2019
 Ala Gln Val Asp Pro Leu Ser Ala Leu Lys Tyr Leu Gln Asn Asp Leu
 650 655 660

 tat ata act gtg gat cat tca gac cca gaa gag aca aaa gag ttt cag 2067
 Tyr Ile Thr Val Asp His Ser Asp Pro Glu Glu Thr Lys Glu Phe Gln
 665 670 675

 ctc ctg gca tca gct cta ttc aaa tct ggt tca gat ttt aca gct ctg 2115
 Leu Leu Ala Ser Ala Leu Phe Lys Ser Gly Ser Asp Phe Thr Ala Leu
 680 685 690 695

 ggc ttt tct gat gtg gat cac acc tat gct caa aga act cag ctc ttt 2163
 Gly Phe Ser Asp Val Asp His Thr Tyr Ala Gln Arg Thr Gln Leu Phe
 700 705 710

 gac acc tta gta aat ttc ttt cct gac agc atg act cct cct aaa ggc 2211
 Asp Thr Leu Val Asn Phe Phe Pro Asp Ser Met Thr Pro Pro Lys Gly
 715 720 725

 aac ctg gta gac ctc atc aca ctg taa ctgaa gagtcactgg acacagaaat 2263
 Asn Leu Val Asp Leu Ile Thr Leu *
 730 735

 ggaaaacagg agtcgatttt ccgtcttttg gattgcagct ccactgactg acagtaaagc 2323
 tgcagtgatt gaggactgca ccagagttct gaagggatct taaccatcac aagtttttac 2383
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 ttcccgcat tcctgtttcc gttttctcac agcctctgg cttttccacc actgagacac 180
 tttgcgtca ggacttcagt gacgtcatct ttctgcggcg cgcggacacc cgccggtgga 240
 agaagaaaca gctccgccgt ctttcgcttc ttttgcgtgg ctgctgctcc ttcggcatc 299
 atg gcg ccg tcg ctg tgg aag ggg ctg gtg ggc atc ggt ctc ttt gcc 347
 Met Ala Pro Ser Leu Trp Lys Gly Leu Val Gly Ile Gly Leu Phe Ala
 1 5 10 15

 cta gcc cac gcc gcc ttt tcc gct gcg cag cat cgt tct tat atg cga 395
 Leu Ala His Ala Ala Phe Ser Ala Ala Gln His Arg Ser Tyr Met Arg
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cggggtcccg	gcgagtccgg	ggtccgctcc	tccagctgcg	cccagggcgc	acgagccggc	180
cagcctcggg	gagagggcgc	gggggcgctg	ggggttctta	cgggaag	atg agg aag	236
					Met Arg Lys	
					1	

ccc gac agc aag atc gtg ctc ctg ggg gac atg aac gtg ggg aag acg 284
Pro Asp Ser Lys Ile Val Leu Leu Gly Asp Met Asn Val Gly Lys Thr
5 10 15

tcg	ctg	ctg	cag	cgg	tat	atg	gag	cgg	cgc	ttc	ccg	gac	acg	gtc	agc	332
Ser	Leu	Leu	Gln	Arg	Tyr	Met	Glu	Arg	Arg	Phe	Pro	Asp	Thr	Val	Ser	
20					25					30					35	

acg gtg ggc ggc gcc ttc tac ctg aag cag tgg cgc tcc tac aac atc 380
Thr Val Gly Gly Ala Phe Tyr Leu Lys Gln Trp Arg Ser Tyr Asn Ile

	40	45	50	
tcc atc tgg gac acc gca ggg cgg gag cag ttc cac ggc ctg gga tcc				428
Ser Ile Trp Asp Thr Ala Gly Arg Glu Gln Phe His Gly Leu Gly Ser				
	55	60	65	
atg tac tgc cgg ggg gcg gcc gcc atc atc ctc acc tat gat gtg aat				476
Met Tyr Cys Arg Gly Ala Ala Ala Ile Ile Leu Thr Tyr Asp Val Asn				
	70	75	80	
cac cgg cag agc ctg gtg gag ctg gag gac cgg ttc ctg ggc ctg aca				524
His Arg Gln Ser Leu Val Glu Leu Glu Asp Arg Phe Leu Gly Leu Thr				
	85	90	95	
gac aca gcc agc aaa gac tgc ctc ttc gcc atc gtg ggg aac aaa gtg				572
Asp Thr Ala Ser Lys Asp Cys Leu Phe Ala Ile Val Gly Asn Lys Val				
	100	105	110	115
gac ctc act gag gag ggg gcc ttg gcg ggc cag gag aag gaa gag tgc				620
Asp Leu Thr Glu Glu Gly Ala Leu Ala Gly Gln Glu Lys Glu Glu Cys				
	120	125	130	
agt ccc aat atg gac gct ggg gac cgt gtc tcc cca agg gca cct aag				668
Ser Pro Asn Met Asp Ala Gly Asp Arg Val Ser Pro Arg Ala Pro Lys				
	135	140	145	
cag gtg cag ctg gag gat gcg gtg gcc ctt tat aaa aag atc ctc aag				716
Gln Val Gln Leu Glu Asp Ala Val Ala Leu Tyr Lys Lys Ile Leu Lys				
	150	155	160	
tac aag atg ctg gat gag cag gat gtg ccg gcc gct gag caa atg tgc				764
Tyr Lys Met Leu Asp Glu Gln Asp Val Pro Ala Ala Glu Gln Met Cys				
	165	170	175	
ttt gag acc agc gcc aag acc ggc tac aat gtg gac ctc ctg ttt gag				812
Phe Glu Thr Ser Ala Lys Thr Gly Tyr Asn Val Asp Leu Leu Phe Glu				
	180	185	190	195
acc ctc ttt gac ctg gtg gtg cca atg atc tta cag cag aga gct gag				860
Thr Leu Phe Asp Leu Val Val Pro Met Ile Leu Gln Gln Arg Ala Glu				
	200	205	210	
agg ccg tca cac aca gtg gat ata tcc agt cat aag cca ccc aag agg				908
Arg Pro Ser His Thr Val Asp Ile Ser Ser His Lys Pro Pro Lys Arg				
	215	220	225	
acc aga tct ggg tgt tgt gcc tga ctttcgaggg cctcctggac tcagactgtg				962
Thr Arg Ser Gly Cys Cys Ala *				
	230	235		
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gaattatttt ccagaatgac acccgagca gaatgttgga gtggaaatga tggctggcta				1082
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cgctgcctgg cactgggtcct ttgcagccag ccaccaacgg ccccttgcc cttgcagagg				1262
cagaagcctg cgtctgcacc tgcacctctg accgtttcag caccctgggt tgttaccacg				1322
tctacaact ctgacatttc ttgttctcaa gcgtttctct tcaactgtgag ttgtctttgg				1382

tcctcccact tggacttgt atcttgatgc ttataatcc tgactctcga cgtgttcatt 1442
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 taagttcagt gactgttgtg cctctgaggg aatcgtatga tccagatgta attcctctgt 180
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 aagaagggtg tgaagggttc acagtagata caccagcaaa agcaagcatc actagcaaaa 360
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 atg cct ctt gga agt aag tta acg ggc gtg att gtg gaa aat gag aat 467
 Met Pro Leu Gly Ser Lys Leu Thr Gly Val Ile Val Glu Asn Glu Asn
 1 5 10 15
 att acc aaa gaa ggt ggc tta gtg gac atg gcc aag aaa gaa aat gac 515
 Ile Thr Lys Glu Gly Gly Leu Val Asp Met Ala Lys Lys Glu Asn Asp
 20 25 30
 tta aat gca gag ccc aat tta aag cag aca att aaa gca aca gta gag 563
 Leu Asn Ala Glu Pro Asn Leu Lys Gln Thr Ile Lys Ala Thr Val Glu
 35 40 45
 aat ggc aag aag gat ggc att gct gtt gat cat gtt gta ggc ctg aat 611
 Asn Gly Lys Lys Asp Gly Ile Ala Val Asp His Val Val Gly Leu Asn
 50 55 60
 aca gaa aaa tat gct gaa act gtc aaa ctt aag cat aaa aga agc cca 659
 Thr Glu Lys Tyr Ala Glu Thr Val Lys Leu Lys His Lys Arg Ser Pro
 65 70 75 80
 ggt aaa gta aaa gac ata tca att gat gtt gaa aga agg aat gaa aac 707
 Gly Lys Val Lys Asp Ile Ser Ile Asp Val Glu Arg Arg Asn Glu Asn
 85 90 95
 agt gag gta gac acc agt gct gga agt ggc tct gca ccc tct gtt tta 755
 Ser Glu Val Asp Thr Ser Ala Gly Ser Gly Ser Ala Pro Ser Val Leu
 100 105 110
 cac caa agg aac gga caa act gag gat gtg gca act ggg cct agg aga 803
 His Gln Arg Asn Gly Gln Thr Glu Asp Val Ala Thr Gly Pro Arg Arg
 115 120 125

gca gaa aag act tct gtt gcc act agt act gaa ggg aag gac aaa gat	851
Ala Glu Lys Thr Ser Val Ala Thr Ser Thr Glu Gly Lys Asp Lys Asp	
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Lys Lys Glu Thr Glu Gly Thr Val Thr Cys Thr Gly Ala Glu Gly Arg	
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Ser Asp Asn Phe Val Ile Cys Ser Val Thr Gly Ala Gly Pro Arg Glu	
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Glu Arg Met Val Thr Gly Ala Gly Val Val Leu Gly Asp Asn Asp Ala	
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Pro Pro Gly Thr Ser Ala Ser Gln Glu Gly Asp Gly Ser Val Asn Asp	
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Gly Thr Glu Gly Glu Ser Ala Val Thr Ser Thr Gly Ile Thr Glu Asp	
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Gly Glu Gly Pro Ala Ser Cys Thr Gly Ser Glu Asp Ser Ser Glu Gly	
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Phe Ala Ile Ser Ser Glu Ser Glu Glu Asn Gly Glu Ser Ala Met Asp	
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Ser Thr Val Ala Lys Glu Gly Thr Asn Val Pro Leu Val Ala Ala Gly	
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Asp Glu Asp Arg Leu Thr Ile Thr Arg Val Glu Asp Leu Ser Asp Ala	
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Ile Asp Arg His Glu Glu Asn Gln Leu Thr Ala Asp Asn Pro Glu Gly	
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Pro Ser Leu Ile Ala Glu Asn Asn Cys Arg Cys Pro Gly Pro Val Arg	
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Gly Gly Lys Glu Pro Gly Pro Val Leu Ala Val Ser Thr Glu Glu Gly	
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His Asn Gly Pro Ser Val His Lys Pro Ser Ala Gly Gln Gly His Pro	
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Glu Ile Gly Pro Phe Ala Gly Arg Gly Gln Lys Glu Ser Thr Leu His	
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Gln Ala Ser Ala Glu Lys Thr Gly Asp Asp Asn Ser Thr Arg Lys Ser	
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Asp Ser Arg Ile Glu Thr Ala Gln Arg Gln Cys Pro Glu Thr Glu Pro	
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Thr Ser Ser Glu Ala Asn Ser Thr Thr Ser Arg Val Met Glu Glu Lys	
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Asp Glu Tyr Ser Ser Ser Glu Thr Thr Gly Glu Lys Pro Glu Gln Asn	
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Asp Asp Asp Thr Ile Lys Ser Gln Glu Glu Asp Gln Pro Ile Ile Ile	
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Lys Arg Lys Arg Gly Arg Pro Arg Lys Tyr Pro Val Glu Thr Thr Leu	
1490 1495 1500	

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 Ala Lys Arg *
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gcc	aag	act	cgc	tac	cct	gac	atc	ttc	atg	cgg	gag	gag	gtg	gcg	ctc	484
Ala	Lys	Thr	Arg	Tyr	Pro	Asp	Ile	Phe	Met	Arg	Glu	Glu	Val	Ala	Leu	
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Lys	Ile	Asn	Leu	Pro	Glu	Ser	Arg	Val	Gln	Val	Trp	Phe	Lys	Asn	Arg	
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Arg	Ala	Lys	Cys	Arg	Gln	Gln	Gln	Gln	Ser	Gly	Ser	Gly	Thr	Lys	Ser	
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cgc	cca	gcc	aag	aag	aag	tcc	tct	cca	gtg	cgg	gag	agc	tcg	ggc	tcc	628
Arg	Pro	Ala	Lys	Lys	Lys	Ser	Ser	Pro	Val	Arg	Glu	Ser	Ser	Gly	Ser	
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Ser	Ser	Ser	Ser	Ala	Ser	Ser	Ser	Ser	Ala	Asn	Pro	Ala	Ala	Ala	Ala	
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Ala	Ala	Gly	Leu	Gly	Gly	Asn	Pro	Val	Ala	Ala	Ala	Ser	Ser	Leu	Ser	
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Thr	Pro	Ala	Ala	Ser	Ser	Ile	Trp	Ser	Pro	Ala	Ser	Ile	Ser	Pro	Gly	
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Asn	Thr	Ser	Cys	Met	Gln	Arg	Ser	Val	Ala	Ala	Gly	Ala	Ala	Thr	Ala	
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Ala	Ala	Ser	Tyr	Pro	Met	Ser	Tyr	Gly	Gln	Gly	Gly	Ser	Tyr	Gly	Gln	
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Gly	Tyr	Pro	Thr	Pro	Ser	Ser	Ser	Tyr	Phe	Gly	Gly	Val	Asp	Cys	Ser	
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tca	tac	cta	gcg	ccc	atg	cac	tca	cat	cac	cac	ccg	cac	cag	ctc	agc	1060
Ser	Tyr	Leu	Ala	Pro	Met	His	Ser	His	His	His	Pro	His	Gln	Leu	Ser	
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Pro	Met	Ala	Pro	Ser	Ser	Met	Ala	Gly	His	His	His	His	His	Pro	His	
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gcg	cac	cac	ccg	ttg	agc	cag	tcc	tca	ggc	cac	cac	cac	cac	cat	cac	1156

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 His His His His Gln Gly Tyr Gly Gly Ser Gly Leu Ala Phe Asn Ser
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gcc gac tgc ttg gat tac aag gag cct ggc gcc gct gct gct tcc tcc 1252
 Ala Asp Cys Leu Asp Tyr Lys Glu Pro Gly Ala Ala Ala Ala Ser Ser
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 Met Pro Arg Glu Pro Arg Gly Tyr Arg Thr Arg Val Pro Ala Leu
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 Arg Glu Leu Val Pro Ser Ser His Ala Gly Ser Gly Ala Ser Glu His
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tgc cag aac aac agg cag ggt tct cga cag cac aga gcc tca cgc aat 205
 Cys Gln Asn Asn Arg Gln Gly Ser Arg Gln His Arg Ala Ser Arg Asn
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gtg cag gca ggt ggt gct ctc gct cca cca cgg cac ctc tgc ggt ctc 253
 Val Gln Ala Gly Gly Ala Leu Ala Pro Pro Arg His Leu Cys Gly Leu
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 Cys Ser Arg Leu His Phe Leu Lys Pro Asp Leu Ser Val Arg Ala Ala
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 Pro Ser Arg Ala Gly Ala Ser Val Met Ala Leu Arg Lys Glu Leu Leu
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aag tcc atc tgg tac gcc ttt acc gcg ctg gac gtg gag aag agt ggc 397
 Lys Ser Ile Trp Tyr Ala Phe Thr Ala Leu Asp Val Glu Lys Ser Gly
 100 105 110

aaa gtc tcc aag tcc cag ccc agg gtg ctg tcc cac aac ctg tac acg	445
Lys Val Ser Lys Ser Gln Pro Arg Val Leu Ser His Asn Leu Tyr Thr	
115 120 125	
gtc ctg cac atc ccc cat gac ccc gtg gcc ctg gag gaa cac ttc cga	493
Val Leu His Ile Pro His Asp Pro Val Ala Leu Glu Glu His Phe Arg	
130 135 140	
gat gat gat gac ggc cct gtg tcc agc cag gga tac atg ccc tac ctc	541
Asp Asp Asp Asp Gly Pro Val Ser Ser Gln Gly Tyr Met Pro Tyr Leu	
145 150 155	
aac aag tac atc ctg gac aag gtg gag gag ggg gct ttt gtt aaa gag	589
Asn Lys Tyr Ile Leu Asp Lys Val Glu Glu Gly Ala Phe Val Lys Glu	
160 165 170 175	
cac ttt gat gag ctg tgc tgg acg ctg acg gcc aag aag aac tat cgg	637
His Phe Asp Glu Leu Cys Trp Thr Leu Thr Ala Lys Lys Asn Tyr Arg	
180 185 190	
gca gat agc aac ggg aac agt atg ctc tcc aat cag gat gcc ttc cgc	685
Ala Asp Ser Asn Gly Asn Ser Met Leu Ser Asn Gln Asp Ala Phe Arg	
195 200 205	
ctc tgg tgc ctc ttc aac ttc ctg tct gag gac aag tac cct ctg atc	733
Leu Trp Cys Leu Phe Asn Phe Leu Ser Glu Asp Lys Tyr Pro Leu Ile	
210 215 220	
atg gtt cct gat gag ggt gat gaa ggg aac cac ccg agc cct gaa cca	781
Met Val Pro Asp Glu Gly Asp Glu Gly Asn His Pro Ser Pro Glu Pro	
225 230 235	
gtg ccc tct act aaa cac cca aac aag acc cag gat ccc cca gaa agt	829
Val Pro Ser Thr Lys His Pro Asn Lys Thr Gln Asp Pro Pro Glu Ser	
240 245 250 255	
cct aaa cag agt gtc cca aaa agc tgc tgg ggc agg ctc tgg gag cca	877
Pro Lys Gln Ser Val Pro Lys Ser Cys Trp Gly Arg Leu Trp Glu Pro	
260 265 270	
gat aga gca ctc cct ggt gtt ggt gct ggc aac acc acc tgc tgc agc	925
Asp Arg Ala Leu Pro Gly Val Gly Ala Gly Asn Thr Thr Cys Cys Ser	
275 280 285	
tac cag gcc ttc ctt ctc ctg ctc cag gtg gaa tac ctg ctg aaa aag	973
Tyr Gln Ala Phe Leu Leu Leu Leu Gln Val Glu Tyr Leu Leu Lys Lys	
290 295 300	
gta ctc agc agc atg agc ttg gag gtg agc ttg ggt gag ctg gag gag	1021
Val Leu Ser Ser Met Ser Leu Glu Val Ser Leu Gly Glu Leu Glu Glu	
305 310 315	
ctt ctg gcc cag gag gcc cag gtg gcc cag acc acc ggg ggg ctc agc	1069
Leu Leu Ala Gln Glu Ala Gln Val Ala Gln Thr Thr Gly Gly Leu Ser	
320 325 330 335	
gtc tgg cag ttc ctg gag ctc ttc aat tcg ggc tgc tgc ctg cgg ggc	1117
Val Trp Gln Phe Leu Glu Leu Phe Asn Ser Gly Cys Cys Leu Arg Gly	
340 345 350	
gtg ggc cgg gac acc ctc agc atg gcc atc cac gag gtc tac cag gag	1165
Val Gly Arg Asp Thr Leu Ser Met Ala Ile His Glu Val Tyr Gln Glu	
355 360 365	

ctc atc caa gat gtc ctg aag cgg ggc tac ctg tgg aag cga ggg cac	1213
Leu Ile Gln Asp Val Leu Lys Arg Gly Tyr Leu Trp Lys Arg Gly His	
370 375 380	
ctg aga agg aac tgg gcc gaa cgc tgg ttc cag ctg cag ccc agc tgc	1261
Leu Arg Arg Asn Trp Ala Glu Arg Trp Phe Gln Leu Gln Pro Ser Cys	
385 390 395	
ctc tgc tac ttt ggg agt gaa gag tgc aaa gag aaa agg ggc att atc	1309
Leu Cys Tyr Phe Gly Ser Glu Glu Cys Lys Glu Lys Arg Gly Ile Ile	
400 405 410 415	
ccg ctg gat gca cac tgc tgc gtg gag gtg ctg cca gac cgc gac gga	1357
Pro Leu Asp Ala His Cys Cys Val Glu Val Leu Pro Asp Arg Asp Gly	
420 425 430	
aag cgc tgc atg ttc tgt gtg aag aca gcc acc cgc acg tat gag atg	1405
Lys Arg Cys Met Phe Cys Val Lys Thr Ala Thr Arg Thr Tyr Glu Met	
435 440 445	
agc gcc tca gac acg cgc cag cgc cag gag tgg aca gct gcc atc cag	1453
Ser Ala Ser Asp Thr Arg Gln Arg Gln Glu Trp Thr Ala Ala Ile Gln	
450 455 460	
atg gcg atc cgg ctg cag gcc gag ggg aag acg tcc cta cac aag gac	1501
Met Ala Ile Arg Leu Gln Ala Glu Gly Lys Thr Ser Leu His Lys Asp	
465 470 475	
ctg aag cag aaa cgg cgc gag cag cgg gag cag cgg gag cgg cgc cgg	1549
Leu Lys Gln Lys Arg Arg Glu Gln Arg Glu Gln Arg Glu Arg Arg Arg	
480 485 490 495	
gcg gcc aag gaa gag gag ctg ctg cgg ctg cag cag ctg cag gag gag	1597
Ala Ala Lys Glu Glu Glu Leu Leu Arg Leu Gln Gln Leu Gln Glu Glu	
500 505 510	
aag gag cgg aag ctg cag gag ctg gag ctg ctg cag gag gcg cag cgg	1645
Lys Glu Arg Lys Leu Gln Glu Leu Glu Leu Leu Gln Glu Ala Gln Arg	
515 520 525	
cag gcc gag cgg ctg ctg cag gag gag gag gaa cgg cgc cgc agc cag	1693
Gln Ala Glu Arg Leu Leu Gln Glu Glu Glu Glu Arg Arg Ser Gln	
530 535 540	
cac cgc gag ctg cag cag gcg ctc gag ggc caa ctg cgc gag gcg gag	1741
His Arg Glu Leu Gln Gln Ala Leu Glu Gly Gln Leu Arg Glu Ala Glu	
545 550 555	
cag gcc cgg gcc tcc atg cag gct gag atg gag ctg aag gag gag gag	1789
Gln Ala Arg Ala Ser Met Gln Ala Glu Met Glu Leu Lys Glu Glu Glu	
560 565 570 575	
gct gcc cgg cag cgg cag cgc atc aag gag ctg gag gag atg cag cag	1837
Ala Ala Arg Gln Arg Gln Arg Ile Lys Glu Leu Glu Glu Met Gln Gln	
580 585 590	
cgg ttg cag gag gcc ctg caa cta gag gtg aaa gct cgg cga gat gaa	1885
Arg Leu Gln Glu Ala Leu Gln Leu Glu Val Lys Ala Arg Arg Asp Glu	
595 600 605	
gaa tct gtg cga atc gct cag acc aga ctg ctg gaa gag gag gaa gag	1933
Glu Ser Val Arg Ile Ala Gln Thr Arg Leu Leu Glu Glu Glu Glu Glu	
610 615 620	

aag ctg aag cag ttg atg cag ctg aag gag gag cag gag cgc tac atc 1981
Lys Leu Lys Gln Leu Met Gln Leu Lys Glu Glu Gln Glu Arg Tyr Ile
625 630 635

gaa cgg gcg cag cag gag aag gaa gag ctg cag cag gag atg gca cag 2029
Glu Arg Ala Gln Gln Glu Lys Glu Glu Leu Gln Gln Glu Met Ala Gln
640 645 650 655

cag agc cgc tcc ctg cag cag gcc cag cag cag ctg gag gag gtg cgg 2077
Gln Ser Arg Ser Leu Gln Gln Ala Gln Gln Gln Leu Glu Glu Val Arg
660 665 670

cag aac cgg cag agg gct gac gag gat gtg gag gct gcc cag aga aaa 2125
Gln Asn Arg Gln Arg Ala Asp Glu Asp Val Glu Ala Ala Gln Arg Lys
675 680 685

ctg cgc cag gcc agc acc aac gtg aaa cac tgg aat gtc cag atg aac 2173
Leu Arg Gln Ala Ser Thr Asn Val Lys His Trp Asn Val Gln Met Asn
690 695 700

cgg ctg atg cat cca att gag cct gga gat aag cgt ccg gtc acc agc 2221
Arg Leu Met His Pro Ile Glu Pro Gly Asp Lys Arg Pro Val Thr Ser
705 710 715

agc tcc ttc tca ggc ttc cag ccc cct ctg ctt gcc cac cgt gac tcc 2269
Ser Ser Phe Ser Gly Phe Gln Pro Pro Leu Leu Ala His Arg Asp Ser
720 725 730 735

tcc cta aag cgc ctg acc cgc tgg gga tcc cag gcc aac agg acc ccc 2317
Ser Leu Lys Arg Leu Thr Arg Trp Gly Ser Gln Gly Asn Arg Thr Pro
740 745 750

tcg ccc aac agc aat gag cag cag aag tcc ctc aat ggt ggg gat gag 2365
Ser Pro Asn Ser Asn Glu Gln Gln Lys Ser Leu Asn Gly Gly Asp Glu
755 760 765

gct cct gcc ccg gct tcc acc cct cag gaa gat aaa ctg gat cca gca 2413
Ala Pro Ala Pro Ala Ser Thr Pro Gln Glu Asp Lys Leu Asp Pro Ala
770 775 780

cca gaa aat tag cct ctcttagccc cttgttcttc ccaatgtcat atccaccagg 2468
Pro Glu Asn *
785

acctggccac agctggcctg tgggtgatcc cagctcttac taggagaggg agctgaggtc 2528

ctggtgccag gggcccaggc cctccaacca taaacagtcc aggatggaac ctggttcacc 2588

cttcatacca gctccaagcc ccagaccatg ggagctgtct gggatgttga tccttgagaa 2648

cttggccctg tgctttagac ccaaggaccc gattcctggg ctaggaaaga gagaacaagc 2708

aagccggggc tacctgcccc caggtggcca ccaagttgtg gaagcacatt tctaaataaa 2768

aactgctctt agaatgaaaa aaaaaaaaaa aaaa 2802

<210> 966
<211> 1035
<212> DNA
<213> Homo sapiens

<220>

<221> CDS

<222> (160) .. (507)

<400> 966

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ggtggaattc gatggcagga cttggtctgc cttggaggca gtcgtgccca ggagcagaaa      120
cccctgcagc agctgtggaa cgccatcctg ctggtggcc   atg ctc ctg tgc aca      174
                                           Met Leu Leu Cys Thr
                                           1           5

ggc ctc gtg gtc cag gcc cag cgg cag gcg tgc cgg cag agc cag cgg      222
Gly Leu Val Val Gln Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg
                        10                        15                        20

gag ctc gga ggc cag gtg gac ctg ttt aag cgc cgc gtg gtg cgg aga      270
Glu Leu Gly Gly Gln Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg
                        25                        30                        35

ctg gca tcc ctc aag aca cgg cgc tgc cgg ctg agc agg gca gcg cag      318
Leu Ala Ser Leu Lys Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln
                        40                        45                        50

ggc ctc cca gat ccg ggt gct gag acc tgt gcg gtg tgc ctg gac tac      366
Gly Leu Pro Asp Pro Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr
                        55                        60                        65

ttc tgc aac aaa cag tgg ctc cgg gtg ctg ccc tgt aag cac gag ttt      414
Phe Cys Asn Lys Gln Trp Leu Arg Val Leu Pro Cys Lys His Glu Phe
                        70                        75                        80                        85

cac cga gac tgt gtg gac ccc tgg ctg atg ctc cag cag acc tgc cca      462
His Arg Asp Cys Val Asp Pro Trp Leu Met Leu Gln Gln Thr Cys Pro
                        90                        95                        100

ctg tgc aaa ttc aac gtc ctg ggg aac cgc tac tcc gat gat tag ctg      510
Leu Cys Lys Phe Asn Val Leu Gly Asn Arg Tyr Ser Asp Asp *
                        105                        110                        115

cccagctgga ctctgcacat ggggatggac ccttcctgcc tgcaccccggt tctcagcct      570
gggctcccag gacaggacag gatgggacag caggatagac aggacagcaa gccagtgagg      630
tgaggaggaag gatgagggcc ccaccatgtc cacactggga aggagggccc cacagcttca      690
gactgaggat ctagggtctgg gacctgtcag tcaaggaagc gagtgtcact ttgggacctt      750
ctctgcaatc ctgtgacgtg agtctgcctt ccttacaggc agtcccagg tcaataagga      810
aagagaatat ggggccagtg tagctgtcgc cagggttctg ggagctccct gtggcctgtc      870
tggaattcc tgggggctga gactacagtg gccaggtttt gtgcttattg attggggggg      930
gggttgaggg aagagctatc tggccttggc gtaccctggc ctgaccgtct ttcaggatac      990
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<210> 967

<211> 826

<212> DNA
 <213> Homo sapiens

<220>
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 <222> (22) .. (780)

<400> 967

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                        Met Arg Pro Ser Gly Leu Asp Arg Val Leu
                        1          5          10

ccg cag cgg gta cag ccg ctc ctt ccg ctg ctg ctt ctt ggt ctt cag      99
Pro Gln Arg Val Gln Pro Leu Leu Pro Leu Leu Leu Leu Gly Leu Gln
                        15          20          25

gtt ctc ctc gtg ctt gtt gag ccg gcg gcg cat ggc acg tgt ctt ctt     147
Val Leu Leu Val Leu Val Glu Pro Ala Ala His Gly Thr Cys Leu Leu
                        30          35          40

agg ccg cag gtc cag ggg ctt gta ctt ctt gcc ctt gta gaa ttt cct     195
Arg Pro Gln Val Gln Gly Leu Val Leu Leu Ala Leu Val Glu Phe Pro
                        45          50          55

gag gtt ttc ttt ctg agt ctg gtt aat aac tgt gag aac acg ggc aat     243
Glu Val Phe Phe Leu Ser Leu Val Asn Asn Cys Glu Asn Thr Gly Asn
                        60          65          70

gga ttt ccg gac gac tcg gat ctt aga gag ctt gga ggc cgc acc gcc     291
Gly Phe Pro Asp Asp Ser Asp Leu Arg Glu Leu Gly Gly Arg Thr Ala
                        75          80          85          90

tgt cac ttt ggc gac gcg cag ctg gga cag ctc cac ctt cag gtc gtc     339
Cys His Phe Gly Asp Ala Gln Leu Gly Gln Leu His Leu Gln Val Val
                        95          100          105

cag ctg ttt cag cag ctc ctc ctt ctt ctt ccc tcg gag cgg gcg gcg     387
Gln Leu Phe Gln Gln Leu Leu Leu Leu Leu Pro Ser Glu Arg Ala Ala
                        110          115          120

gcg ttg gcg gct tgt gca gca atg gcc aag atc aag gct cga gat ctt     435
Ala Leu Ala Ala Cys Ala Ala Met Ala Lys Ile Lys Ala Arg Asp Leu
                        125          130          135

cgc ggg aag aag aag gag gag ctg ctg aaa cag ctg gac gac ctg aag     483
Arg Gly Lys Lys Lys Glu Glu Leu Leu Lys Gln Leu Asp Asp Leu Lys
                        140          145          150

gtg gag ctg tcc cag ctg cgc gtc gcc aaa gtg aca ggc ggt gcg gcc     531
Val Glu Leu Ser Gln Leu Arg Val Ala Lys Val Thr Gly Gly Ala Ala
                        155          160          165          170

tcc aag ctc tct aag atc cga gtc gtc cgg aaa tcc att gcc cgt gtt     579
Ser Lys Leu Ser Lys Ile Arg Val Val Arg Lys Ser Ile Ala Arg Val
                        175          180          185

ctc aca gtt att aac cag act cag aaa gaa aac ctc agg aaa ttc tac     627
Leu Thr Val Ile Asn Gln Thr Gln Lys Glu Asn Leu Arg Lys Phe Tyr
                        190          195          200

aag ggc aag aag tac aag ccc ctg gac ctg cgg cct aag aag aca cgt     675
Lys Gly Lys Lys Tyr Lys Pro Leu Asp Leu Arg Pro Lys Lys Thr Arg
                        205          210          215

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gcc atg cgc cgc cgg ctc aac aag cac gag gag aac ctg aag acc aag      723
Ala Met Arg Arg Arg Leu Asn Lys His Glu Glu Asn Leu Lys Thr Lys
      220                225                230

aag cag cag cgg aag gag cgg ctg tac ccg ctg cgg aag tac gcg gtc      771
Lys Gln Gln Arg Lys Glu Arg Leu Tyr Pro Leu Arg Lys Tyr Ala Val
235                240                245                250

aag gcc tga ggggcgcatt gtcaataaag cacagctggc tgagaaaaaa aaaaaa      826
Lys Ala *

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<210> 968
<211> 1360
<212> DNA
<213> Homo sapiens

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<220>
<221> CDS
<222> (156)..(932)

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<400> 968
cactataggg aatttggccc tcgaggccaa gaattcggca cgaggaagaa tttgtttgta      60
aggatatggga aggtcgggtgg cgagtgatcc ctcatgatgt actaccagac tggctcaagg      120
ataatgactt cctcttgcat ggacaccggc ctctt      atg cct tct tta cgg gcc      173
                                         Met Pro Ser Leu Arg Ala
                                         1                5

tgt ttt aag agc att ttc aga ata cac aca gaa aca ggc aac att tgg      221
Cys Phe Lys Ser Ile Phe Arg Ile His Thr Glu Thr Gly Asn Ile Trp
      10                15                20

aca cat ctc tta ggt tgt gta ttc ttc ctg tgc ctg ggg atc ttt tat      269
Thr His Leu Leu Gly Cys Val Phe Phe Leu Cys Leu Gly Ile Phe Tyr
      25                30                35

atg ttt cgc cca aat atc tcc ttt gtg gcc cct ctg caa gag aag gtg      317
Met Phe Arg Pro Asn Ile Ser Phe Val Ala Pro Leu Gln Glu Lys Val
      40                45                50

gtc ttt gga tta ttt ttc tta gga gcc att ctc tgc ctt tct ttt tca      365
Val Phe Gly Leu Phe Phe Leu Gly Ala Ile Leu Cys Leu Ser Phe Ser
      55                60                65                70

tgg ctc ttc cac aca gtc tac tgc cac tca gag ggg gtc tct cgg ctc      413
Trp Leu Phe His Thr Val Tyr Cys His Ser Glu Gly Val Ser Arg Leu
      75                80                85

ttc tct aaa ctg gat tac tct ggt att gct ctt ctg att atg gga agt      461
Phe Ser Lys Leu Asp Tyr Ser Gly Ile Ala Leu Leu Ile Met Gly Ser
      90                95                100

ttt gtt cct tgg ctt tat tat tct ttc tac tgt aat cca caa cct tgc      509
Phe Val Pro Trp Leu Tyr Tyr Ser Phe Tyr Cys Asn Pro Gln Pro Cys
      105                110                115

ttc atc tac ttg att gtc atc tgt gtg ctg ggc att gca gcc att ata      557
Phe Ile Tyr Leu Ile Val Ile Cys Val Leu Gly Ile Ala Ala Ile Ile

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120	125	130	
gtc tcc cag tgg gac atg ttt gcc acc cct cag tat cgg gga gta aga			605
Val Ser Gln Trp Asp Met Phe Ala Thr Pro Gln Tyr Arg Gly Val Arg			
135	140	145	150
gca gga gtg ttt ttg ggc cta ggc ctg agt gga atc att cct acc ttg			653
Ala Gly Val Phe Leu Gly Leu Gly Leu Ser Gly Ile Ile Pro Thr Leu			
	155	160	165
cac tat gtc atc tcg gag ggg ttc ctt aag gcc gcc acc ata ggg cag			701
His Tyr Val Ile Ser Glu Gly Phe Leu Lys Ala Ala Thr Ile Gly Gln			
	170	175	180
ata ggc tgg ttg atg ctg atg gcc agc ctc tac atc aca gga gct gcc			749
Ile Gly Trp Leu Met Leu Met Ala Ser Leu Tyr Ile Thr Gly Ala Ala			
	185	190	195
ctg tat gct gcc cgg atc ccc gaa cgc ttt ttc cct ggc aaa tgt gac			797
Leu Tyr Ala Ala Arg Ile Pro Glu Arg Phe Phe Pro Gly Lys Cys Asp			
	200	205	210
atc tgg ttt cac tct cat cag ctg ttt cat atc ttt gtg gtt gct gga			845
Ile Trp Phe His Ser His Gln Leu Phe His Ile Phe Val Val Ala Gly			
	215	220	225
gct ttt gtt cac ttc cat ggt gtc tca aac ctc cag gag ttt cgt ttc			893
Ala Phe Val His Phe His Gly Val Ser Asn Leu Gln Glu Phe Arg Phe			
	235	240	245
atg atc ggc ggg ggc tgc agt gaa gag gat gca ctg tga tacctaccag			942
Met Ile Gly Gly Gly Cys Ser Glu Glu Asp Ala Leu *			
	250	255	
tctccaggga ctatgaccct aaaccagggc ctgcggcact tgcgggcctc cctgctggct			1002
actgatgcca gtaccagagg agccccaaaa ctttgacagc ctcgtgggct ttgtgacggc			1062
ccaggggctc tgcgtggtac atgactgaga agagaaaaac aaaaataaat catacctcaa			1122
aggatggagt gcatcaattg ggagaaaagg agacatagcc caaacctgg cttattcttg			1182
ggatctactg attgcgggct ctgcaagacc cttggcaaac tggcttctga tccatatcat			1242
atttatttgt agaagatggc gaaacagttt agctggtggt tctttcttct ccctttctct			1302
ctctctatga caataataca aaccaattta ataaaggagt tgaaagaaaa aaaaaaaa			1360
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ggggcggggc cggactccga cccccggggc gcttcgagcc cccagctgg tcaccgaggc			120

accgccgctt caccagggcc agtagccgcc ccctcgcgca ccccgggccc gcctcacacg 180

cgcgcccgag cgagccccgg gctcccctcg ggcccagcgt ggctgcaggg tgtcagtggg 240

tctctcgggt ctcgggacag gtgagcaccc tg atg aag gcc acg gtc ctg atg 293
Met Lys Ala Thr Val Leu Met
1 5

cgg cag cct ggg cgg gtg cag gag atc gtg ggc gcc ctc cgc aag ggc 341
Arg Gln Pro Gly Arg Val Gln Glu Ile Val Gly Ala Leu Arg Lys Gly
10 15 20

ggc gga gac cgg tta cag gtg att tct gat ttt gac atg acc ttg agc 389
Gly Gly Asp Arg Leu Gln Val Ile Ser Asp Phe Asp Met Thr Leu Ser
25 30 35

agg ttt gca tat aat gga aag cga tgc cct tct tct tac aat att ctg 437
Arg Phe Ala Tyr Asn Gly Lys Arg Cys Pro Ser Ser Tyr Asn Ile Leu
40 45 50 55

gat aat agc aag atc atc agt gag gag tgt cgg aaa gag ctc aca gcg 485
Asp Asn Ser Lys Ile Ile Ser Glu Glu Cys Arg Lys Glu Leu Thr Ala
60 65 70

ctc ctt cac cac tat tac cca att gag atc gac cca cac cgg acc gtc 533
Leu Leu His His Tyr Tyr Pro Ile Glu Ile Asp Pro His Arg Thr Val
75 80 85

aag gag aag cta cct cat atg gtg gaa tgg tgg acc aaa gcg cac aat 581
Lys Glu Lys Leu Pro His Met Val Glu Trp Trp Thr Lys Ala His Asn
90 95 100

ctc cta tgt cag cag aag att cag aag ttt cag ata gcc cag gtg gtt 629
Leu Leu Cys Gln Gln Lys Ile Gln Lys Phe Gln Ile Ala Gln Val Val
105 110 115

aga gag tcc aat gca atg ctc agg gag gga tat aag acc ttc ttc aac 677
Arg Glu Ser Asn Ala Met Leu Arg Glu Gly Tyr Lys Thr Phe Phe Asn
120 125 130 135

aca ctc tac cat aac aac att ccc ctt ttc atc ttt tct gcg ggc att 725
Thr Leu Tyr His Asn Asn Ile Pro Leu Phe Ile Phe Ser Ala Gly Ile
140 145 150

ggg gat atc ctg gaa gaa att atc cga cag atg aaa gtg ttc cac ccc 773
Gly Asp Ile Leu Glu Glu Ile Ile Arg Gln Met Lys Val Phe His Pro
155 160 165

aac atc cac atc gtg tct aac tac atg gat ttt aat gaa gat ggt ttt 821
Asn Ile His Ile Val Ser Asn Tyr Met Asp Phe Asn Glu Asp Gly Phe
170 175 180

ctc cag gga ttt aag ggc cag ctg ata cac aca tac aac aag aac agc 869
Leu Gln Gly Phe Lys Gly Gln Leu Ile His Thr Tyr Asn Lys Asn Ser
185 190 195

tct gcg tgt gag aac tct ggt tac ttc cag caa ctt gag ggc aaa acc 917
Ser Ala Cys Glu Asn Ser Gly Tyr Phe Gln Gln Leu Glu Gly Lys Thr
200 205 210 215

aat gtc atc ctg ctg gga gac tct atc ggg gac ctc acc atg gcc gat 965
Asn Val Ile Leu Leu Gly Asp Ser Ile Gly Asp Leu Thr Met Ala Asp
220 225 230

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ggg gtt cct ggt gtg cag aac att ctc aaa att ggc ttc ctg aat gac      1013
Gly Val Pro Gly Val Gln Asn Ile Leu Lys Ile Gly Phe Leu Asn Asp
                235                      240                      245

aag gtg gag gag cgg cgg gag cgc tac atg gac tcc tat gac atc gtg      1061
Lys Val Glu Glu Arg Arg Glu Arg Tyr Met Asp Ser Tyr Asp Ile Val
                250                      255                      260

ctg gag aag gac gag act ctg gat gtg gtc aac ggg cta ctg cag cac      1109
Leu Glu Lys Asp Glu Thr Leu Asp Val Val Asn Gly Leu Leu Gln His
                265                      270                      275

atc ctg tgc cag ggg gtc cag ctg gag atg caa ggc ccc tga aggcgca      1158
Ile Leu Cys Gln Gly Val Gln Leu Glu Met Gln Gly Pro *
                280                      285                      290

ggctccagcc cggcctgcag gccgtggtga ggagggggcgc ctccccagag tctgctcccc      1218

cgtgaacaca gacgagaggc caggggtggcc agcagtggct gggtccttcc gcgccccctcc      1278

gtcctccttt ccctgagcac cttcatcacc agaggcttga aggaaccccg ccatgtggca      1338

gggcacaggc actgttctctg gtgaaccttg gaccacagca tgtcagtgct ctagggattg      1398

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Trp Arg Trp His Phe Tyr Asp Thr Val Lys Gly Ser Asp Trp Leu Gly
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gac cag gat gcc atc cac tac atg acg gag cag gcc ccc gcc gcc gtg      149
Asp Gln Asp Ala Ile His Tyr Met Thr Glu Gln Ala Pro Ala Ala Val
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gtc gag cta gaa aat tat ggc atg ccg ttt agc aga act gaa gat ggg      197
Val Glu Leu Glu Asn Tyr Gly Met Pro Phe Ser Arg Thr Glu Asp Gly
                40                      45                      50

aag att tat cag cgt gca ttt ggt gga cag agc ctc aag ttt gga aag      245
Lys Ile Tyr Gln Arg Ala Phe Gly Gly Gln Ser Leu Lys Phe Gly Lys
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ggc ggg cag gcc cat cgg tgc tgc tgt gtg gct gat cgg act ggc cac      293
Gly Gly Gln Ala His Arg Cys Cys Cys Val Ala Asp Arg Thr Gly His
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 Ser Leu Leu His Thr Leu Tyr Gly Arg Ser Leu Arg Tyr Asp Thr Ser
 90 95 100

tat ttt gtg gag tat ttt gcc ttg gat ctc ctg atg gag aat ggg gag 389
 Tyr Phe Val Glu Tyr Phe Ala Leu Asp Leu Leu Met Glu Asn Gly Glu
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tgc cgt ggt gtc atc gca ctg tgc ata gaa gtc gac gcg gcc gcg aat 437
 Cys Arg Gly Val Ile Ala Leu Cys Ile Glu Val Asp Ala Ala Ala Asn
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tcg gat cct cga gag atc tct ttt ttt ggg ttt ggt ggg gta tct tca 485
 Ser Asp Pro Arg Glu Ile Ser Phe Phe Gly Phe Gly Gly Val Ser Ser
 135 140 145

tca tcg aat aga tag ttgtatacat cagccgtcca aacttagtaa tcgtccacat 540
 Ser Ser Asn Arg *
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 agtgaggtcc agcctacatc aagggctagt gtctccttac tgaagggcca ggggcaggct 180
 ggaaggcagg gtccccagtc cagtggcacc ttggccctca gcagtaagca ccagtttcag 240

atg gag ggg ctc ctg ggg gct tgg gag ggg gcc cca agg cag cca cct 288
 Met Glu Gly Leu Leu Gly Ala Trp Glu Gly Ala Pro Arg Gln Pro Pro
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 Arg His Leu Gln Ala Asn Ser Thr Val Thr Ser Phe Gln Arg Tyr His
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gag gcc ctg aat aca ccc ttc gag ctg aac ctg tca ggg gaa cct gga 384
 Glu Ala Leu Asn Thr Pro Phe Glu Leu Asn Leu Ser Gly Glu Pro Gly
 35 40 45

aac cag ggg ttg cgg cga gtg gtc atc gat ggc agc agt gtg gcc atg 432
 Asn Gln Gly Leu Arg Arg Val Val Ile Asp Gly Ser Ser Val Ala Met
 50 55 60

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 Val His Gly Leu Gln His Phe Phe Ser Cys Arg Gly Ile Ala Met Ala
 65 70 75 80

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Val Gln Phe Phe Trp Asn Arg Gly His Arg Glu Val Thr Val Phe Val	
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ccc acc tgg cag ctg aag aag aac cgg agg gtg aga gag agc cac ttt	576
Pro Thr Trp Gln Leu Lys Lys Asn Arg Arg Val Arg Glu Ser His Phe	
100 105 110	
ctg acg aag cta cac tcg ctc aag atg ctt tca atc aca ccc tcc cag	624
Leu Thr Lys Leu His Ser Leu Lys Met Leu Ser Ile Thr Pro Ser Gln	
115 120 125	
ctt gag aat ggc aag aag atc acc acc tac gat tat agg ttc atg gta	672
Leu Glu Asn Gly Lys Lys Ile Thr Thr Tyr Asp Tyr Arg Phe Met Val	
130 135 140	
aag ctg gca gag gag aca gat ggc atc att gtc acc aat gag cag att	720
Lys Leu Ala Glu Glu Thr Asp Gly Ile Ile Val Thr Asn Glu Gln Ile	
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His Ile Leu Met Asn Ser Ser Lys Lys Leu Met Val Lys Asp Arg Leu	
165 170 175	
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Leu Pro Phe Thr Phe Ala Gly Asn Leu Phe Met Val Pro Asp Asp Pro	
180 185 190	
ctg ggc cgt gat ggc ccc acc ttg gat gag ttt ctg aag aag cca aac	864
Leu Gly Arg Asp Gly Pro Thr Leu Asp Glu Phe Leu Lys Lys Pro Asn	
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Arg Leu Asp Thr Asp Ile Gly Asn Phe Leu Lys Val Trp Lys Thr Leu	
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cct ccc agc tca gcc agt gtc act gag ctg agt gat gac gct gac tct	960
Pro Pro Ser Ser Ala Ser Val Thr Glu Leu Ser Asp Asp Ala Asp Ser	
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Gly Pro Leu Glu Ser Leu Pro Asn Met Glu Glu Val Arg Glu Glu Lys	
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gag gag agg cag gat gag gag cag aga cag ggg cag ggc aca cag aag	1056
Glu Glu Arg Gln Asp Glu Glu Gln Arg Gln Gly Gln Gly Thr Gln Lys	
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Ala Ala Glu Glu Asp Asp Leu Asp Ser Ser Leu Ala Ser Val Phe Arg	
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Val Glu Cys Pro Ser Leu Ser Glu Glu Ile Leu Arg Cys Leu Ser Leu	
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His Asp Pro Pro Asp Gly Ala Leu Asp Ile Asp Leu Leu Pro Gly Ala	
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Ala Ser Pro Tyr Leu Gly Ile Pro Trp Asp Gly Lys Ala Pro Cys Gln	
325 330 335	

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Gln Val Leu Ala His Leu Ala Gln Leu Thr Ile Pro Ser Asn Phe Thr	
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Ala Leu Ser Phe Phe Met Gly Phe Met Asp Ser His Arg Asp Ala Ile	
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Pro Asp Tyr Glu Ala Leu Val Gly Pro Leu His Ser Leu Leu Lys Gln	
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Lys Pro Asp Trp Gln Trp Asp Gln Glu His Glu Glu Ala Phe Leu Ala	
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Leu Lys Arg Ala Leu Val Ser Ala Leu Cys Leu Met Ala Pro Asn Ser	
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Gln Leu Pro Phe Arg Leu Glu Val Thr Val Ser His Val Ala Leu Thr	
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Ala Ile Leu His Gln Glu His Ser Gly Arg Lys His Pro Ile Ala Tyr	
435 440 445	
acc tca aaa ccc ctc ctc cct gat gag gag agc cag ggc ccc cag tca	1632
Thr Ser Lys Pro Leu Leu Pro Asp Glu Glu Ser Gln Gly Pro Gln Ser	
450 455 460	
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Gly Gly Asp Ser Pro Tyr Ala Val Ala Trp Ala Leu Lys His Phe Ser	
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Arg Cys Ile Gly Asp Thr Pro Val Val Leu Asp Leu Ser Tyr Ala Ser	
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Arg Thr Thr Ala Asp Pro Glu Val Arg Glu Gly Arg Arg Val Ser Lys	
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Ala Trp Leu Ile Arg Trp Ser Leu Leu Val Gln Asp Lys Gly Lys Arg	
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Ala Leu Glu Leu Ala Leu Leu Gln Gly Leu Leu Gly Glu Asn Arg Leu	
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Leu Thr Pro Ala Ala Ser Met Pro Arg Phe Phe Gln Val Leu Pro Pro	
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Phe Ser Asp Leu Ser Thr Phe Val Cys Ile His Met Ser Gly Tyr Cys	
565 570 575	
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Phe Tyr Arg Glu Asp Glu Trp Cys Ala Gly Phe Gly Leu Tyr Val Leu	
580 585 590	

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Thr Pro Thr Tyr Ala His Leu Ala Ala Val Ala Cys Gly Leu Glu Arg	
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Phe Gly Gln Ser Pro Leu Pro Val Val Phe Leu Thr His Cys Asn Trp	
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Ala Lys Gln Gly Ala Gln Gly Gly Gly Gln Trp Trp Ser Leu Pro Lys	
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gat gtg cca gcc cct aca gtg agt ccc cat gcc atg ggc aag agg ccc	2448
Asp Val Pro Ala Pro Thr Val Ser Pro His Ala Met Gly Lys Arg Pro	
725 730 735	
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Asn Leu Leu Ala Leu Gln Leu Ser Asp Ser Thr Leu Ala Asp Ile Ile	
740 745 750	
gcc agg ctg cag gct ggg cag aaa ctg tct ggc tcc tca ccg ttt agt	2544
Ala Arg Leu Gln Ala Gly Gln Lys Leu Ser Gly Ser Ser Pro Phe Ser	
755 760 765	
tct gcc ttt aac tca ctc agc ctc gac aag gag agt ggc ctg ctt atg	2592
Ser Ala Phe Asn Ser Leu Ser Leu Asp Lys Glu Ser Gly Leu Leu Met	
770 775 780	
ttc aag gga gat aag aag ccc agg gtc tgg gta gtc ccg acg caa ctc	2640
Phe Lys Gly Asp Lys Lys Pro Arg Val Trp Val Val Pro Thr Gln Leu	
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cgg agg gat ctg att ttc tct gtg cat gac att ccc ttg ggg gcc cac	2688
Arg Arg Asp Leu Ile Phe Ser Val His Asp Ile Pro Leu Gly Ala His	
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Gln Arg Pro Glu Glu Thr Tyr Lys Lys Leu Arg Leu Leu Gly Trp Trp	
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Pro Gly Met Gln Glu His Val Lys Asp Tyr Cys Arg Ser Cys Leu Phe	
835 840 845	

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cca tgg ccc ctc agg tgc acc gcc ccc tgg tgc aac ctg cag atc gag Pro Trp Pro Leu Arg Ser Thr Ala Pro Trp Ser Asn Leu Gln Ile Glu 865 870 875 880	2880
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 Phe Lys Val Leu Glu Gln *
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 Ser Ala Thr Trp Thr Val Leu Leu Phe Val Tyr Phe Asn Phe Ser Glu
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 Val Thr Gln Pro Leu Lys Asn Val Pro Val Lys Gly Ser Gly Pro His
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 gga cca tct cca aaa aaa ttc tat ccc cgt ttc act cga ggc cca agt 192
 Gly Pro Ser Pro Lys Lys Phe Tyr Pro Arg Phe Thr Arg Gly Pro Ser
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 Arg Val Leu Glu Pro Gln Phe Lys Ala Asn Lys Ile Asp Asp Val Ile
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 Asp Ser Arg Val Glu Asp Pro Glu Glu Gly His Leu Lys Phe Ser Ser
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 Glu Leu Gly Met Ile Phe Asn Glu Arg Asp Gln Glu Leu Arg Asp Leu
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 ggc tat cag aaa cat gct ttt aat atg ctt atc agt gac cgc ttg ggc 384
 Gly Tyr Gln Lys His Ala Phe Asn Met Leu Ile Ser Asp Arg Leu Gly
 115 120 125
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 Tyr His Arg Asp Val Pro Asp Thr Arg Asn Ala Ala Cys Lys Glu Lys
 130 135 140

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Phe Tyr Pro Pro Asp Leu Pro Ala Ala Ser Val Val Ile Cys Phe Tyr	
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Asn Glu Ala Phe Ser Ala Leu Leu Arg Thr Val His Ser Val Ile Asp	
165 170 175	
cgc acg cca gca cac ctg ctt cat gag atc atc ctt gtg gat gat gat	576
Arg Thr Pro Ala His Leu Leu His Glu Ile Ile Leu Val Asp Asp Asp	
180 185 190	
agt gac ttt gat gat ttg aaa gga gaa cta gat gaa tat gtc caa aaa	624
Ser Asp Phe Asp Asp Leu Lys Gly Glu Leu Asp Glu Tyr Val Gln Lys	
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tac ctc cct gga aaa att aaa gtc ata aga aat aca aag cgt gag ggg	672
Tyr Leu Pro Gly Lys Ile Lys Val Ile Arg Asn Thr Lys Arg Glu Gly	
210 215 220	
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Leu Ile Arg Gly Arg Met Ile Gly Ala Ala His Ala Thr Gly Glu Val	
225 230 235 240	
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Leu Val Phe Leu Asp Ser His Cys Glu Val Asn Val Met Trp Leu Gln	
245 250 255	
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Pro Leu Leu Ala Ala Ile Arg Glu Asp Arg His Thr Val Val Cys Pro	
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Val Ile Asp Ile Ile Ser Ala Asp Thr Leu Ala Tyr Ser Ser Ser Pro	
275 280 285	
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Val Val Arg Gly Gly Phe Asn Trp Gly Leu His Phe Lys Trp Asp Leu	
290 295 300	
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Val Pro Leu Ser Glu Leu Gly Arg Ala Glu Gly Ala Thr Ala Pro Ile	
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Lys Ser Pro Thr Met Ala Gly Gly Leu Phe Ala Met Asn Arg Gln Tyr	
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 aaccctgcgt ggcaatccct gacgcaccgc cgtg atg ccc agg gaa gac agg 1132
 Met Pro Arg Glu Asp Arg
 1 5
 gcg acc tgg aag tcc aac tac ttc ctt aag atc atc caa cta ttg gat 1180
 Ala Thr Trp Lys Ser Asn Tyr Phe Leu Lys Ile Ile Gln Leu Leu Asp
 10 15 20
 gat tat ccg aaa tgt ttc att gtg gga gca gac aat gtg ggc tcc aag 1228
 Asp Tyr Pro Lys Cys Phe Ile Val Gly Ala Asp Asn Val Gly Ser Lys
 25 30 35
 cag atg cag cag atc cgc atg tcc ctt cgc ggg aag gct gtg gtg ctg 1276
 Gln Met Gln Gln Ile Arg Met Ser Leu Arg Gly Lys Ala Val Val Leu
 40 45 50
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 Met Gly Lys Asn Thr Met Met Arg Lys Ala Ile Arg Gly His Leu Glu
 55 60 65 70
 aac aac cca gct ctg gag aaa ctg ctg cct cat atc cgg ggg aat gtg 1372
 Asn Asn Pro Ala Leu Glu Lys Leu Leu Pro His Ile Arg Gly Asn Val
 75 80 85
 ggc ttt gtg ttc acc aag gag gac ctc act gag atc agg gac atg ttg 1420
 Gly Phe Val Phe Thr Lys Glu Asp Leu Thr Glu Ile Arg Asp Met Leu
 90 95 100
 ctg gcc aat aag gtg cca gct gct gcc cgt gct ggt gcc att gcc cca 1468
 Leu Ala Asn Lys Val Pro Ala Ala Ala Arg Ala Gly Ala Ile Ala Pro
 105 110 115
 tgt gaa gtc act gtg cca gcc cag aac act ggt ctc ggg ccc gag aag 1516
 Cys Glu Val Thr Val Pro Ala Gln Asn Thr Gly Leu Gly Pro Glu Lys
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 acc tcc ttt ttc cag gct tta ggt atc acc act aaa atc tcc agg ggc 1564
 Thr Ser Phe Phe Gln Ala Leu Gly Ile Thr Thr Lys Ile Ser Arg Gly
 135 140 145 150
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 Thr Ile Glu Ile Leu Gly Val Arg Asn Val Ala Ser Val Cys Leu Gln
 155 160 165
 att ggc tac cca act gtt gca tca gta ccc cat tct atc atc aac ggg 1660
 Ile Gly Tyr Pro Thr Val Ala Ser Val Pro His Ser Ile Ile Asn Gly
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 tac aaa cga gtc ctg gcc ttg tct gtg gag acg gat tac acc ttc cca 1708
 Tyr Lys Arg Val Leu Ala Leu Ser Val Glu Thr Asp Tyr Thr Phe Pro
 185 190 195
 ctt gct gaa aag gtc aag gcc ttc ttg gct gat cca tct gcc ttt gtg 1756
 Leu Ala Glu Lys Val Lys Ala Phe Leu Ala Asp Pro Ser Ala Phe Val

200	205	210	
gct gct gcc cct gtg gct gct gcc acc aca gct gct cct gct gct gct			1804
Ala Ala Ala Pro Val Ala Ala Ala Thr Thr Ala Ala Pro Ala Ala Ala			
215	220	225	230
gca gcc cca gct aag gtt gaa gcc aag gaa gag tcg gag gag tcg gac			1852
Ala Ala Pro Ala Lys Val Glu Ala Lys Glu Glu Ser Glu Glu Ser Asp			
	235	240	245
gag gat atg gga ttt ggt ctc ttt gac taa t caccaaaaag caaccaactt			1903
Glu Asp Met Gly Phe Gly Leu Phe Asp *			
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 <212> DNA
 <213> Homo sapiens

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 <221> CDS
 <222> (547) .. (1239)

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gcatcacact tgggttaatag taggtcctgt tgtaaagtct ctaatggcga taccctatgg	180
cttctccaaa tgggtgacctt gccaaattgt tttccaaagc gacatgtggc ttttttctcc	240
caatccctca ttttaactct catggtaatt taacttttat atttttatta gatgcattta	300
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gaccttggtt tttattacc tatcattaat gttttctggt ttcttttatc agcgagttac	480
tgctcatttg attcatattg ccaaactgaa ctctcttggt ttcttgcaag atgaaaggag	540
acaacc atg aat gag cca cta gac tat tta gca aat gct tct gat ttc	588
Met Asn Glu Pro Leu Asp Tyr Leu Ala Asn Ala Ser Asp Phe	
1 5 10	
ccc gat tat gca gct gct ttt gga aat tgc act gat gaa aac atc cca	636
Pro Asp Tyr Ala Ala Ala Phe Gly Asn Cys Thr Asp Glu Asn Ile Pro	
15 20 25 30	
ctc aag atg cac tac ctc cct gtt att tat ggc att atc ttc ctc gtg	684
Leu Lys Met His Tyr Leu Pro Val Ile Tyr Gly Ile Ile Phe Leu Val	
35 40 45	
gga ttt cca ggc aat gca gta gtg ata tcc act tac att ttc aaa atg	732
Gly Phe Pro Gly Asn Ala Val Val Ile Ser Thr Tyr Ile Phe Lys Met	
50 55 60	
aga cct tgg aag agc agc acc atc att atg ctg aac ctg gcc tgc aca	780

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<212> DNA
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<222> (58) .. (1482)
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Met Arg Leu Ser Lys Thr Leu Val Asp Met Asp Met Ala Asp Tyr Ser
      1              5              10              15

gct gca ctg gac cca gcc tac acc acc ctg gaa ttt gag aat gtg cag      153

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Val	Leu	Thr	Met	Gly	Asn	Asp	Thr	Ser	Pro	Ser	Glu	Gly	Thr	Asn	Leu	
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aac	gcg	ccc	aac	agc	ctg	ggg	gtc	agc	gcc	ctg	tgt	gcc	atc	tgc	ggg	249
Asn	Ala	Pro	Asn	Ser	Leu	Gly	Val	Ser	Ala	Leu	Cys	Ala	Ile	Cys	Gly	
	50					55					60					
gac	cgg	gcc	acg	ggc	aaa	cac	tac	ggg	gcc	tgc	agc	tgt	gac	ggc	tgc	297
Asp	Arg	Ala	Thr	Gly	Lys	His	Tyr	Gly	Ala	Ser	Ser	Cys	Asp	Gly	Cys	
65					70					75					80	
aag	ggc	ttc	ttc	cgg	agg	agc	gtg	cgg	aag	aac	cac	atg	tac	tcc	tgc	345
Lys	Gly	Phe	Phe	Arg	Arg	Ser	Val	Arg	Lys	Asn	His	Met	Tyr	Ser	Cys	
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aga	ttt	agc	cgg	cag	tgc	gtg	gtg	gac	aaa	gac	aag	agg	aac	cag	tgc	393
Arg	Phe	Ser	Arg	Gln	Cys	Val	Val	Asp	Lys	Asp	Lys	Arg	Asn	Gln	Cys	
			100					105					110			
cgc	tac	tgc	agg	ctc	aag	aaa	tgc	ttc	cgg	gct	ggc	atg	aag	aag	gaa	441
Arg	Tyr	Cys	Arg	Leu	Lys	Lys	Cys	Phe	Arg	Ala	Gly	Met	Lys	Lys	Glu	
		115					120					125				
gcc	gtc	cag	aat	gag	cgg	gac	cgg	atc	agc	act	cga	agg	tca	agc	tat	489
Ala	Val	Gln	Asn	Glu	Arg	Asp	Arg	Ile	Ser	Thr	Arg	Arg	Ser	Ser	Tyr	
	130					135					140					
gag	gac	agc	agc	ctg	ccc	tcc	atc	aat	gcg	ctc	ctg	cag	gcg	gag	gtc	537
Glu	Asp	Ser	Ser	Leu	Pro	Ser	Ile	Asn	Ala	Leu	Leu	Gln	Ala	Glu	Val	
145					150					155					160	
ctg	tcc	cga	cag	atc	acc	tcc	ccc	gtc	tcc	ggg	atc	aac	ggc	gac	att	585
Leu	Ser	Arg	Gln	Ile	Thr	Ser	Pro	Val	Ser	Gly	Ile	Asn	Gly	Asp	Ile	
			165					170						175		
cgg	gcg	aag	aag	att	gcc	agc	atc	gca	gat	gtg	tgt	gag	tcc	atg	aag	633
Arg	Ala	Lys	Lys	Ile	Ala	Ser	Ile	Ala	Asp	Val	Cys	Glu	Ser	Met	Lys	
		180						185					190			
gag	cag	ctg	ctg	gtt	ctc	gtt	gag	tgg	gcc	aag	tac	atc	cca	gct	ttc	681
Glu	Gln	Leu	Leu	Val	Leu	Val	Glu	Trp	Ala	Lys	Tyr	Ile	Pro	Ala	Phe	
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Cys	Glu	Leu	Pro	Leu	Asp	Asp	Gln	Val	Ala	Leu	Leu	Arg	Ala	His	Ala	
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ggc	gag	cac	ctg	ctg	ctc	gga	gcc	acc	aag	aga	tcc	atg	gtg	ttc	aag	777
Gly	Glu	His	Leu	Leu	Leu	Gly	Ala	Thr	Lys	Arg	Ser	Met	Val	Phe	Lys	
225					230					235					240	
gac	gtg	ctg	ctc	cta	ggc	aat	gac	tac	att	gtc	cct	cgg	cac	tgc	ccg	825
Asp	Val	Leu	Leu	Leu	Gly	Asn	Asp	Tyr	Ile	Val	Pro	Arg	His	Cys	Pro	
				245					250					255		
gag	ctg	gcg	gag	atg	agc	cgg	gtg	tcc	ata	cgc	atc	ctt	gac	gag	ctg	873
Glu	Leu	Ala	Glu	Met	Ser	Arg	Val	Ser	Ile	Arg	Ile	Leu	Asp	Glu	Leu	
		260						265					270			
gtg	ctg	ccc	ttc	cag	gag	ctg	cac	atc	gat	gac	aat	gag	tat	gcc	tac	921

Val	Leu	Pro	Phe	Gln	Glu	Leu	His	Ile	Asp	Asp	Asn	Glu	Tyr	Ala	Tyr		
		275					280					285					
ctc	aaa	gcc	atc	atc	ttc	ttt	gac	cca	gat	gcc	aag	ggg	ctg	agc	gat		969
Leu	Lys	Ala	Ile	Ile	Phe	Phe	Asp	Pro	Asp	Ala	Lys	Gly	Leu	Ser	Asp		
	290					295					300						
cca	ggg	aag	atc	aag	cgg	ctg	cgt	tcc	cag	gtg	cag	gtg	agc	ttg	gag		1017
Pro	Gly	Lys	Ile	Lys	Arg	Leu	Arg	Ser	Gln	Val	Gln	Val	Ser	Leu	Glu		
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gac	tac	atc	aac	gac	cgc	cag	tat	gac	tgc	cgt	ggc	cgc	ttt	gga	gag		1065
Asp	Tyr	Ile	Asn	Asp	Arg	Gln	Tyr	Asp	Ser	Arg	Gly	Arg	Phe	Gly	Glu		
			325					330						335			
ctg	ctg	ctg	ctg	ctg	ccc	acc	ttg	cag	agc	atc	acc	tgg	cag	atg	atc		1113
Leu	Leu	Leu	Leu	Leu	Pro	Thr	Leu	Gln	Ser	Ile	Thr	Trp	Gln	Met	Ile		
			340					345					350				
gag	cag	atc	cag	ttc	atc	aag	ctc	ttc	ggc	atg	gcc	aag	att	gac	aac		1161
Glu	Gln	Ile	Gln	Phe	Ile	Lys	Leu	Phe	Gly	Met	Ala	Lys	Ile	Asp	Asn		
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ctg	ttg	cag	gag	atg	ctg	ctg	gga	ggg	tcc	ccc	agc	gat	gca	ccc	cat		1209
Leu	Leu	Gln	Glu	Met	Leu	Leu	Gly	Gly	Ser	Pro	Ser	Asp	Ala	Pro	His		
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gcc	cac	cac	ccc	ctg	cac	cct	cac	ctg	atg	cag	gaa	cat	atg	gga	acc		1257
Ala	His	His	Pro	Leu	His	Pro	His	Leu	Met	Gln	Glu	His	Met	Gly	Thr		
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aac	gtc	atc	gtt	gcc	aac	aca	atg	ccc	act	cac	ctc	agc	aac	gga	cag		1305
Asn	Val	Ile	Val	Ala	Asn	Thr	Met	Pro	Thr	His	Leu	Ser	Asn	Gly	Gln		
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Met	Cys	Glu	Trp	Pro	Arg	Pro	Arg	Gly	Gln	Ala	Ala	Thr	Pro	Glu	Thr		
			420					425					430				
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Pro	Gln	Pro	Ser	Pro	Pro	Gly	Gly	Ser	Gly	Ser	Glu	Pro	Tyr	Lys	Leu		
		435					440					445					
ctg	ccg	gga	gcc	gtc	gcc	aca	atc	gtc	aag	ccc	ctc	tct	gcc	atc	ccc		1449
Leu	Pro	Gly	Ala	Val	Ala	Thr	Ile	Val	Lys	Pro	Leu	Ser	Ala	Ile	Pro		
		450				455					460						
cag	ccg	acc	atc	acc	aag	cag	gaa	gtt	atc	tag	caagccgc	tggggccttg					1500
Gln	Pro	Thr	Ile	Thr	Lys	Gln	Glu	Val	Ile	*							
465					470				475								
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gactttgact	tggggagacc	tctactgcct	tggacaactt	atctcatggt	gaagccactg												1740
ccttcacctt	caccttcac	catgtccaac	ccccgacttc	atcccaatgg	acagccgcct												1800
ggagatgact	tgaggcctta	cttaaacc	gctcccttct	tccctagcct	ggtgcttctc												1860
ctctcctagc	ccctgtcatg	gtgtccagac	agagccctgt	gaggtgggt	ccaattgtgg												1920

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<213> Homo sapiens

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agaccccaga gccggtcctt ggaacactgc agtcctgagc tctggg atg gag ccc 235
Met Glu Pro
1
gag act gcg ctg tgg ggc ccg gat ctg cag ggt ccg gaa cag agc ccc 283
Glu Thr Ala Leu Trp Gly Pro Asp Leu Gln Gly Pro Glu Gln Ser Pro
5 10 15
aac gat gct cac aga ggt gcc gag agt gaa aac gaa gag gag agc cct 331
Asn Asp Ala His Arg Gly Ala Glu Ser Glu Asn Glu Glu Glu Ser Pro
20 25 30 35
cgg cag gaa agt tct ggg gag gag atc atc atg gga gac ccg gct cag 379
Arg Gln Glu Ser Ser Gly Glu Glu Ile Ile Met Gly Asp Pro Ala Gln
40 45 50

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agt cca gaa tcc aag gac tca aca gag atg tcc ctg gag aga tcc tcc	427
Ser Pro Glu Ser Lys Asp Ser Thr Glu Met Ser Leu Glu Arg Ser Ser	
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Gln Asp Pro Ser Val Pro Gln Asn Pro Pro Thr Pro Leu Gly His Ser	
70 75 80	
aat ccc ttg gac cac cag atc ccc ctg gac ccc cca gcc ccg gag gta	523
Asn Pro Leu Asp His Gln Ile Pro Leu Asp Pro Pro Ala Pro Glu Val	
85 90 95	
gtc cct acc cca tct gac tgg acc aag gcc tgc gag gcc agc tgg cag	571
Val Pro Thr Pro Ser Asp Trp Thr Lys Ala Cys Glu Ala Ser Trp Gln	
100 105 110 115	
tgg ggc gct ctc acc aca tgg aac agc ccc cca gtc gtc ccc gcc aac	619
Trp Gly Ala Leu Thr Thr Trp Asn Ser Pro Pro Val Val Pro Ala Asn	
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Glu Pro Ser Leu Arg Glu Leu Val Gln Gly Arg Pro Ala Gly Ala Glu	
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Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Gln Trp Ser	
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Lys Leu Leu Arg His Gln Arg Ile His Thr Gly Glu Arg Pro Asn Thr	
165 170 175	
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Cys Ser Glu Cys Gly Lys Ser Phe Thr Gln Ser Ser His Leu Val Gln	
180 185 190 195	
cac cag cgc acg cac acc ggc gag aag ccc tac aag tgc ccc gac tgc	859
His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Pro Asp Cys	
200 205 210	
ggc aag tgc ttc agc tgg agc tcc aac ctg gtg cag cac cag cgc acg	907
Gly Lys Cys Phe Ser Trp Ser Ser Asn Leu Val Gln His Gln Arg Thr	
215 220 225	
cac acg gga gaa gag ccc tac aag tgc acg gag tgc gag ata gcc ttc	955
His Thr Gly Glu Glu Pro Tyr Lys Cys Thr Glu Cys Glu Ile Ala Phe	
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Thr Gln Ser Thr Asn Leu Ile Lys His Gln Arg Ser His Thr Gly Glu	
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Lys Pro Tyr Lys Cys Gly Glu Cys Arg Arg Ala Phe Tyr Arg Ser Ser	
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Asp Leu Ile Gln His Gln Ala Thr His Thr Gly Glu Lys Pro Tyr Lys	
280 285 290	
tgc ccc gag tgc ggg aag cgc ttc ggc cag aac cac aac ctc ctc aag	1147
Cys Pro Glu Cys Gly Lys Arg Phe Gly Gln Asn His Asn Leu Leu Lys	
295 300 305	

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Pro Gly Ala Lys Pro His Lys Cys Leu Val Cys Gly Lys Gly Phe Asn	
565 570 575	
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Asp Glu Gly Ile Phe Met Gln His Gln Arg Ile His Ile Gly Glu Asn	
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Glu Gly Glu Lys Arg Tyr Leu Gln Ala Gly Lys Phe Phe Leu Leu Cys				
	355	360	365	
ggc caa tat tca cga gca ctt aaa cac ttc ctg aaa tgc cca agc tcg				1154
Gly Gln Tyr Ser Arg Ala Leu Lys His Phe Leu Lys Cys Pro Ser Ser				
	370	375	380	
gaa gat aat gtg gca ata gaa atg gca att gaa act gtt ggt cag gcc				1202
Glu Asp Asn Val Ala Ile Glu Met Ala Ile Glu Thr Val Gly Gln Ala				
	385	390	395	
aaa gat gaa ctg ctg acc aat cag ctg ata gac cat ctc ctg ggg gag				1250
Lys Asp Glu Leu Leu Thr Asn Gln Leu Ile Asp His Leu Leu Gly Glu				
	400	405	410	
aac gat agc atg cct aag gat gcc aag tac ctg ttc cgc ttg tac atg				1298
Asn Asp Ser Met Pro Lys Asp Ala Lys Tyr Leu Phe Arg Leu Tyr Met				
	415	420	425	430
gct ctg aag caa tac cga gaa gct gcc cag act gcc atc atc att gcc				1346
Ala Leu Lys Gln Tyr Arg Glu Ala Ala Gln Thr Ala Ile Ile Ile Ala				
	435	440	445	
aga gaa gag cag tct gca ggc aac tac cgg aat gca cac gat gtt ctc				1394
Arg Glu Glu Gln Ser Ala Gly Asn Tyr Arg Asn Ala His Asp Val Leu				
	450	455	460	
ttc agt atg tat gca gaa ctg aaa tcc cag aag atc aaa att ccc tcc				1442
Phe Ser Met Tyr Ala Glu Leu Lys Ser Gln Lys Ile Lys Ile Pro Ser				
	465	470	475	
gag atg gcc acc aac ctc atg att ctg cac agc tat ata cta gta aga				1490
Glu Met Ala Thr Asn Leu Met Ile Leu His Ser Tyr Ile Leu Val Arg				
	480	485	490	
ttc atg tta aaa atg gag atc aca tga aaggg gctcgcacgc tcattcgggt				1542
Phe Met Leu Lys Met Glu Ile Thr *				
	495	500		
ggccaacaac atcagcaaatt ttccatcaca cattgtaccc atcctgacgt caactgtgat				1602

tgagtgtcac agggcaggcc tgaagaactc tgctttcagc ttcgcagcta tgttgatgag 1662
gcctgaatac cgcagcaaaa tagatgccaa atacaaaaag aagatcgagg gaatggtcag 1722
gagacccgat atatctgaga tagaagaggc cacgactcca tgtccattct gcaaatttct 1782
tctcccagag agagaactcc tca 1805

<210> 982
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<212> DNA
<213> Homo sapiens

<220>
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<222> (231)..(1202)

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gctgagtctg ctgctcctgc tgctgctgct ccagcctgta acctgtgcct acaccacgcc 180
aggccccccc cagagccctc accacgctgg ggcgccccag agcccacacc atg ccg 236
Met Pro
1
ggc acc tac gct ccc tcg acc aca ctc agt agt ccc agc acc cag ggc 284
Gly Thr Tyr Ala Pro Ser Thr Thr Leu Ser Ser Pro Ser Thr Gln Gly
5 10 15
ctg caa gag cag gca cgg gcc ctg atg cgg gac ttc ccg ctc gtg gac 332
Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe Pro Leu Val Asp
20 25 30
ggc cac aac gac ctg ccc ctg gtc cta agg cag gtt tac cag aaa ggg 380
Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln Val Tyr Gln Lys Gly
35 40 45 50
cta cag gat gtt aac ctg cgc aat ttc agc tac ggc cag acc agc ctg 428
Leu Gln Asp Val Asn Leu Arg Asn Phe Ser Tyr Gly Gln Thr Ser Leu
55 60 65
gac agg ctt aga gat ggc ctc gtg ggc gcc cag ttc tgg tca gcc tat 476
Asp Arg Leu Arg Asp Gly Leu Val Gly Ala Gln Phe Trp Ser Ala Tyr
70 75 80
gtg cca tgc cag acc cag gac cgg gat gcc ctg cgc ctc acc ctg gag 524
Val Pro Cys Gln Thr Gln Asp Arg Asp Ala Leu Arg Leu Thr Leu Glu
85 90 95
cag att gac ctc ata cgc cgc atg tgt gcc tcc tat tct gag ctg gag 572
Gln Ile Asp Leu Ile Arg Arg Met Cys Ala Ser Tyr Ser Glu Leu Glu
100 105 110
ctt gtg acc tcg gct aaa gct ctg aac gac act cag aaa ttg gcc tgc 620
Leu Val Thr Ser Ala Lys Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys
115 120 125 130
ctc atc ggt gta gag ggt ggc cac tcg ctg gac aat agc ctc tcc atc 668

Leu	Ile	Gly	Val	Glu	Gly	Gly	His	Ser	Leu	Asp	Asn	Ser	Leu	Ser	Ile		
				135					140					145			
tta	cgt	acc	ttc	tac	atg	ctg	gga	gtg	cgc	tac	ctg	acg	ctc	acc	cac		716
Leu	Arg	Thr	Phe	Tyr	Met	Leu	Gly	Val	Arg	Tyr	Leu	Thr	Leu	Thr	His		
			150					155					160				
acc	tgc	aac	aca	ccc	tgg	gca	gag	agc	tcc	gct	aag	ggc	gtc	cac	tcc		764
Thr	Cys	Asn	Thr	Pro	Trp	Ala	Glu	Ser	Ser	Ala	Lys	Gly	Val	His	Ser		
			165					170					175				
ttc	tac	aac	aac	atc	agc	ggg	ctg	act	gac	ttt	ggt	gag	aag	gtg	gtg		812
Phe	Tyr	Asn	Asn	Ile	Ser	Gly	Leu	Thr	Asp	Phe	Gly	Glu	Lys	Val	Val		
	180						185				190						
gca	gaa	atg	aac	cgc	ctg	ggc	atg	atg	gta	gac	tta	tcc	cat	gtc	tca		860
Ala	Glu	Met	Asn	Arg	Leu	Gly	Met	Met	Val	Asp	Leu	Ser	His	Val	Ser		
195					200					205					210		
gat	gct	gtg	gca	cgg	cgg	gcc	ctg	gaa	gtg	tca	cag	gca	cct	gtg	atc		908
Asp	Ala	Val	Ala	Arg	Arg	Ala	Leu	Glu	Val	Ser	Gln	Ala	Pro	Val	Ile		
				215					220					225			
ttc	tcc	cac	tcg	gct	gcc	cgg	ggt	gtg	tgc	aac	agt	gct	cgg	aat	gtt		956
Phe	Ser	His	Ser	Ala	Ala	Arg	Gly	Val	Cys	Asn	Ser	Ala	Arg	Asn	Val		
			230					235					240				
cct	gat	gac	atc	ctg	cag	ctt	ctg	aag	aag	aac	ggt	ggc	gtc	gtg	atg		1004
Pro	Asp	Asp	Ile	Leu	Gln	Leu	Leu	Lys	Lys	Asn	Gly	Gly	Val	Val	Met		
			245					250					255				
gtg	tct	ttg	tcc	atg	gga	gta	ata	cag	tgc	aac	cca	tca	gcc	aat	gtg		1052
Val	Ser	Leu	Ser	Met	Gly	Val	Ile	Gln	Cys	Asn	Pro	Ser	Ala	Asn	Val		
	260					265					270						
tcc	act	gtg	gca	gat	cac	ttc	gac	cac	atc	aag	gct	gtc	att	gga	tcc		1100
Ser	Thr	Val	Ala	Asp	His	Phe	Asp	His	Ile	Lys	Ala	Val	Ile	Gly	Ser		
275					280					285					290		
aag	ttc	atc	ggg	att	ggt	gga	gat	tat	gat	ggg	gcc	ggc	aag	tac	agg		1148
Lys	Phe	Ile	Gly	Ile	Gly	Gly	Asp	Tyr	Asp	Gly	Ala	Gly	Lys	Tyr	Arg		
				295				300						305			
aag	aaa	aca	aag	tgc	aaa	gcc	cct	tgg	agg	aca	agt	tcc	cgg	atg	agc		1196
Lys	Lys	Thr	Lys	Cys	Lys	Ala	Pro	Trp	Arg	Thr	Ser	Ser	Arg	Met	Ser		
			310					315					320				
agc	tga	gcagttcctg	ccactccgac	ctctcacgtc	tgcgtcagag	acagagtctg											1252
Ser	*																

<210> 983
 <211> 1608
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (49)..(1608)

<400> 983

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Met Ala Glu
1

gat gaa cct tca ggg gcc ctc ttg aag ccg ctg gtt ttt cgc gtt gac 105
Asp Glu Pro Ser Gly Ala Leu Leu Lys Pro Leu Val Phe Arg Val Asp
5 10 15

gag acc acc ccg gct gtg gtg caa agc gtc ctc ctg gag agg ggg tgg 153
Glu Thr Thr Pro Ala Val Val Gln Ser Val Leu Leu Glu Arg Gly Trp
20 25 30 35

aat aag ttt gat aag cag gag cag aac gcg gag gac tgg aac ctg tac 201
Asn Lys Phe Asp Lys Gln Glu Gln Asn Ala Glu Asp Trp Asn Leu Tyr
40 45 50

tgg agg aca tcc tct ttc cga atg acc gaa cac aac agt gtt aaa ccg 249
Trp Arg Thr Ser Ser Phe Arg Met Thr Glu His Asn Ser Val Lys Pro
55 60 65

tgg cag cag cta aac cac cac cct gga acc acc aag ctt acc agg aaa 297
Trp Gln Gln Leu Asn His His Pro Gly Thr Thr Lys Leu Thr Arg Lys
70 75 80

gac tgt ttg gcc aaa cac ctg aag cac atg agg agg atg tat ggc act 345
Asp Cys Leu Ala Lys His Leu Lys His Met Arg Arg Met Tyr Gly Thr
85 90 95

tcc ctg tac cag ttc atc ccc ctg acg ttc gtc atg ccc aat gac tat 393
Ser Leu Tyr Gln Phe Ile Pro Leu Thr Phe Val Met Pro Asn Asp Tyr
100 105 110 115

acc aag ttc gtg gct gaa tac ttt cag gag agg cag atg ctg ggc acc 441
Thr Lys Phe Val Ala Glu Tyr Phe Gln Glu Arg Gln Met Leu Gly Thr
120 125 130

aag cat agc tat tgg att tgc aag cct gct gag tta tct cgt ggg agg 489
Lys His Ser Tyr Trp Ile Cys Lys Pro Ala Glu Leu Ser Arg Gly Arg
135 140 145

ggg ata cta att ttc agt gac ttt aaa gac ttc atc ttt gat gat atg 537
Gly Ile Leu Ile Phe Ser Asp Phe Lys Asp Phe Ile Phe Asp Asp Met
150 155 160

tac ata gtg cag aaa tat atc tcc aat cct tta ctt att ggc aga tat 585
Tyr Ile Val Gln Lys Tyr Ile Ser Asn Pro Leu Leu Ile Gly Arg Tyr
165 170 175

aaa tgt gat ctc cgc atc tat gtt tgt gtt act ggc ttt aag cct ttg 633
Lys Cys Asp Leu Arg Ile Tyr Val Cys Val Thr Gly Phe Lys Pro Leu
180 185 190 195

acc att tat gtt tat cag gaa ggg ttg gtt cgg ttt gcc acg gaa aag 681
Thr Ile Tyr Val Tyr Gln Glu Gly Leu Val Arg Phe Ala Thr Glu Lys
200 205 210

ttt gac ctc agt aat ttg caa aac aat tat gcc cat ttg acc aac agc 729
Phe Asp Leu Ser Asn Leu Gln Asn Asn Tyr Ala His Leu Thr Asn Ser
215 220 225

agc atc aat aaa tcc ggg gcc tct tat gag aag atc aaa gaa gtg att 777
Ser Ile Asn Lys Ser Gly Ala Ser Tyr Glu Lys Ile Lys Glu Val Ile
230 235 240

ggt cat ggt tgt aaa tgg acg ctc agc aga ttt ttt tcc tac ctt cgt	825
Gly His Gly Cys Lys Trp Thr Leu Ser Arg Phe Phe Ser Tyr Leu Arg	
245 250 255	
agc tgg gat gtg gac gat ctg ctt ttg tgg aag aaa atc cac cgc atg	873
Ser Trp Asp Val Asp Asp Leu Leu Leu Trp Lys Lys Ile His Arg Met	
260 265 270 275	
gtt att ctc acc att ctc gcc att gca cca tct gtc ccc ttt gct gcc	921
Val Ile Leu Thr Ile Leu Ala Ile Ala Pro Ser Val Pro Phe Ala Ala	
280 285 290	
aat tgc ttt gag ctc ttt ggg ttt gat att ttg att gat gac aac ttg	969
Asn Cys Phe Glu Leu Phe Gly Phe Asp Ile Leu Ile Asp Asp Asn Leu	
295 300 305	
aaa cca tgg ctt tta gag gtc aac tac agc cca gcc ttg acc ttg gat	1017
Lys Pro Trp Leu Leu Glu Val Asn Tyr Ser Pro Ala Leu Thr Leu Asp	
310 315 320	
tgt tca aca gat gtg ttg gtg aag aga aaa ctt gtc cat gat att att	1065
Cys Ser Thr Asp Val Leu Val Lys Arg Lys Leu Val His Asp Ile Ile	
325 330 335	
gac ctg att tac tta aat ggt cta aga aat gag ggg aga gaa gcc agt	1113
Asp Leu Ile Tyr Leu Asn Gly Leu Arg Asn Glu Gly Arg Glu Ala Ser	
340 345 350 355	
aat gcc aca cat gga aat tcc aac atc gac gct gca aaa agt gac aga	1161
Asn Ala Thr His Gly Asn Ser Asn Ile Asp Ala Ala Lys Ser Asp Arg	
360 365 370	
ggt ggg ctt gat gct cct gac tgt ctt cct tat gat tct ctt tcg ttc	1209
Gly Gly Leu Asp Ala Pro Asp Cys Leu Pro Tyr Asp Ser Leu Ser Phe	
375 380 385	
aca agc aga atg tac aac gag gat gac tct gtg gtg gag aaa gct gtg	1257
Thr Ser Arg Met Tyr Asn Glu Asp Asp Ser Val Val Glu Lys Ala Val	
390 395 400	
agt gtg cgt cct gaa gct gca cct gcc tcc cag ctg gaa gga gag atg	1305
Ser Val Arg Pro Glu Ala Ala Pro Ala Ser Gln Leu Glu Gly Glu Met	
405 410 415	
agt ggg cag gat ttt cat ctg tca aca agg gag atg cca caa agc aag	1353
Ser Gly Gln Asp Phe His Leu Ser Thr Arg Glu Met Pro Gln Ser Lys	
420 425 430 435	
ccc aag tta cgg agc agg cac acg cct cac aag aca ctc atg ccc tac	1401
Pro Lys Leu Arg Ser Arg His Thr Pro His Lys Thr Leu Met Pro Tyr	
440 445 450	
gcg tcc ctc ttc cag tcg cac tcc tgc aag acc aag acc tcc ccg tgt	1449
Ala Ser Leu Phe Gln Ser His Ser Cys Lys Thr Lys Thr Ser Pro Cys	
455 460 465	
gtc ctg tca gac cgt ggc aaa gct cca gat ccc caa gca ggc aac ttt	1497
Val Leu Ser Asp Arg Gly Lys Ala Pro Asp Pro Gln Ala Gly Asn Phe	
470 475 480	
gtt ctt gtt ttt cct ttc aat gaa gca act ctc gga gct tcc agg aat	1545
Val Leu Val Phe Pro Phe Asn Glu Ala Thr Leu Gly Ala Ser Arg Asn	
485 490 495	

gga tta aat gtc aaa aga ata atc caa gag ctc cag aaa cta atg aat 1593
 Gly Leu Asn Val Lys Arg Ile Ile Gln Glu Leu Gln Lys Leu Met Asn
 500 505 510 515

aag caa cat tcc taa 1608
 Lys Gln His Ser *
 520

<210> 984
 <211> 1891
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (362)..(1084)

<220>
 <221> misc_feature
 <222> (1)...(1891)
 <223> n = a,t,c or g

<400> 984
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 gacaaagtgg ataatctcta ccacgtgaga aacttccaac attacttgca aatcagattt 180
 aatgaataaa ataaagctgt agcacttggc acattcattg ggacccttac ccaaacatta 240
 tcaatattgt gtacgttatc tttattatca ggtcacaaaa gatgtcataa aagaatttgc 300
 agatgacggc gtcaagtacc tggaactaag gagcacaccc agaagagaaa atgctactgg 360
 a atg act aaa aag act tat gtg gaa tct ata ctt gaa ggt ata aaa 406
 Met Thr Lys Lys Thr Tyr Val Glu Ser Ile Leu Glu Gly Ile Lys
 1 5 10 15
 cag tcc aaa caa gaa aac ttg gac att gat gtt agg tat ttg ata gca 454
 Gln Ser Lys Gln Glu Asn Leu Asp Ile Asp Val Arg Tyr Leu Ile Ala
 20 25 30
 gtt gac aga aga ggt ggc cct tta gta gcc aag gag act gta aaa ctt 502
 Val Asp Arg Arg Gly Gly Pro Leu Val Ala Lys Glu Thr Val Lys Leu
 35 40 45
 gcc gag gag ttc ttc ctt tct act gag ggt aca gtt ctt ggc ctt gac 550
 Ala Glu Glu Phe Phe Leu Ser Thr Glu Gly Thr Val Leu Gly Leu Asp
 50 55 60
 ctc agt gga gac cct act gta gga caa gca aaa gac ttc ttg gaa cct 598
 Leu Ser Gly Asp Pro Thr Val Gly Gln Ala Lys Asp Phe Leu Glu Pro
 65 70 75
 ctt tta gaa gct aag aaa gca ggt ctg aag tta gca ttg cat ctt tca 646
 Leu Leu Glu Ala Lys Lys Ala Gly Leu Lys Leu Ala Leu His Leu Ser
 80 85 90 95

gag att cca aac caa aaa aaa gaa aca caa ata ctc ctg gat ctg ctt	694
Glu Ile Pro Asn Gln Lys Lys Glu Thr Gln Ile Leu Leu Asp Leu Leu	
100 105 110	
cct gac aga atc ggg cat gga aca ttt ctc aac tcc ggt gag gga gga	742
Pro Asp Arg Ile Gly His Gly Thr Phe Leu Asn Ser Gly Glu Gly Gly	
115 120 125	
tcc ctg gat ctg gtg gac ttt gtg agg caa cat cgg ata cca ctg gaa	790
Ser Leu Asp Leu Val Asp Phe Val Arg Gln His Arg Ile Pro Leu Glu	
130 135 140	
ctc tgt ttg acc tca aac gtc aaa agt cag aca gtt cca tct tat gac	838
Leu Cys Leu Thr Ser Asn Val Lys Ser Gln Thr Val Pro Ser Tyr Asp	
145 150 155	
cag cac cat ttc gga ttc tgg tac agc att gcc cat cct tct gtg atc	886
Gln His His Phe Gly Phe Trp Tyr Ser Ile Ala His Pro Ser Val Ile	
160 165 170 175	
tgt act gat gat aag ggt gtt ttt gca aca cac ctt tct caa gag tac	934
Cys Thr Asp Asp Lys Gly Val Phe Ala Thr His Leu Ser Gln Glu Tyr	
180 185 190	
cag ctg gca gct gaa aca ttt aat ttg acc cag tct cag gtg tgg gat	982
Gln Leu Ala Ala Glu Thr Phe Asn Leu Thr Gln Ser Gln Val Trp Asp	
195 200 205	
ctg tct tat gaa tcc atc aac tac atc ttt gct tct gac agc acc aga	1030
Leu Ser Tyr Glu Ser Ile Asn Tyr Ile Phe Ala Ser Asp Ser Thr Arg	
210 215 220	
tct gaa ctg agg aag aaa tgg aat cac ctg aag ccc aga gtg tta cat	1078
Ser Glu Leu Arg Lys Lys Trp Asn His Leu Lys Pro Arg Val Leu His	
225 230 235	
att taa gctataatga ggtgaactac ttctgagtat gtgtttcaat caagttcctg	1134
Ile *	
240	
ccatatccca cttagtaaaa cagtccacca ctcttttgaa gcatagcaac caagttcctt	1194
gggctctatc accagcacct tacacatggc aggtactcag taaatacgtg tcttcaactg	1254
actcacaagc tctcaggtgc ttactgggtg ggacttgact gttgttgcta attaaatccc	1314
cattccacca gtgattattg tgactcagca gtccttcctt attagtgatc ataaaatttc	1374
agggaaatcg aagtttctca tcaggaaatg ttttggaatt actagtataa agttaggaaa	1434
gtggggaaat taggttactg ccgagacctt taagccttct aaacagcttt atattttatt	1494
gtgcatactt taatcagact cccttcactc gctttaagtt tttaaaagta ttccccagcc	1554
ggatgtgatg gctcatgcct gtaatcccag cactttggga agccaaagtg ggcagattgc	1614
ttgatcctag gagttcagta gcagcctagg caacatggag aaacctgtc tctacaaaaa	1674
caaaaaaaca aaaaaccgga aattagtcag gcacgggtgg acacacctgt agtcccagcc	1734
accagggagg ctaaggtggg aggagacctg atcccagggg atgtttgagg ctgcagtgag	1794
ctggagtgca gtgacatgat cacagatcac tgcagctttc agtttttaaaa cagcttttat	1854

tacattntct ttgtggaaag ctgatttcta ccttaga

1891

<210> 985
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 985
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 Leu Glu Met Arg Leu Lys Ser Ser Phe Leu Arg Gly Leu Gly Ser Trp
 20 25 30
 Lys Ser Asn Pro Leu Arg Leu Gly Gly Trp Thr Ile Leu Leu Thr Leu
 35 40 45
 Thr Met Gly Gln Gly Glu Pro Gly Gly Pro Gln Gly Asp Pro Trp Val
 50 55 60
 Pro His Glu Leu Leu Leu Pro Ser Leu Cys Asp Ser Ser His Ala Ser
 65 70 75 80
 Ser Trp Gly Ser Gly Ser Ile Thr Cys Ala Trp Arg Gly Gly Asp Ser
 85 90 95
 Ser Ser His Pro Leu Val Ser Gly His Ile Leu Ser Asn Ser Pro Val
 100 105 110
 Ala Ala Val Met Cys Ser Ser Met Gly Thr His Leu Ser Pro Phe Lys
 115 120 125
 Gly Thr Leu Leu *
 130 132

<210> 986
 <211> 851
 <212> PRT
 <213> Homo sapiens

<400> 986
 Lys Ala Ile Arg Met Phe Lys Cys Trp Ser Val Val Leu Val Leu Gly
 1 5 10 15
 Phe Ile Phe Leu Glu Ser Glu Gly Arg Pro Thr Lys Glu Gly Gly Tyr
 20 25 30
 Gly Leu Lys Ser Tyr Gln Pro Leu Met Arg Leu Arg His Lys Gln Glu
 35 40 45
 Lys Asn Gln Glu Ser Ser Arg Val Lys Gly Phe Met Ile Gln Asp Gly
 50 55 60
 Pro Leu Gly Ser Cys Glu Asn Lys Tyr Cys Gly Leu Gly Arg His Cys
 65 70 75 80
 Val Ala Ser Arg Glu Thr Gly Gln Ala Glu Cys Ala Cys Met Asp Leu
 85 90 95
 Cys Lys Arg His Tyr Arg Pro Val Cys Gly Ser Asp Gly Glu Phe Tyr
 100 105 110
 Glu Asn His Cys Glu Val His Arg Ala Ala Cys Leu Lys Lys Gln Lys
 115 120 125
 Ile Thr Ile Val His Asn Glu Asp Cys Phe Phe Lys Gly Asp Lys Cys
 130 135 140
 Lys Thr Thr Glu Tyr Ser Lys Met Lys Asn Met Leu Leu Asp Leu Gln
 145 150 155 160
 Asn Gln Lys Tyr Ile Met Gln Glu Asn Glu Asn Pro Asn Gly Asp Asp
 165 170 175
 Ile Ser Arg Lys Lys Leu Leu Val Asp Gln Met Phe Lys Tyr Phe Asp
 180 185 190
 Ala Asp Ser Asn Gly Leu Val Asp Ile Asn Glu Leu Thr Gln Val Ile
 195 200 205

Lys	Gln	Glu	Glu	Leu	Gly	Lys	Asp	Leu	Phe	Asp	Cys	Thr	Leu	Tyr	Val
210						215					220				
Leu	Leu	Lys	Tyr	Asp	Asp	Phe	Asn	Ala	Asp	Lys	His	Leu	Ala	Leu	Glu
225					230					235					240
Glu	Phe	Tyr	Arg	Ala	Phe	Gln	Val	Ile	Gln	Leu	Ser	Leu	Pro	Glu	Asp
				245					250					255	
Gln	Lys	Leu	Ser	Ile	Thr	Ala	Ala	Thr	Val	Gly	Gln	Ser	Ala	Val	Leu
			260					265					270		
Ser	Cys	Ala	Ile	Gln	Gly	Thr	Leu	Arg	Pro	Pro	Ile	Ile	Trp	Lys	Arg
		275					280					285			
Asn	Asn	Ile	Ile	Leu	Asn	Asn	Leu	Asp	Leu	Glu	Asp	Ile	Asn	Asp	Phe
290						295					300				
Gly	Asp	Asp	Gly	Ser	Leu	Tyr	Ile	Thr	Lys	Val	Thr	Thr	Thr	His	Val
305					310					315					320
Gly	Asn	Tyr	Thr	Cys	Tyr	Ala	Asp	Gly	Tyr	Glu	Gln	Val	Tyr	Gln	Thr
				325				330						335	
His	Ile	Phe	Gln	Val	Asn	Val	Pro	Pro	Val	Ile	Arg	Val	Tyr	Pro	Glu
			340				345						350		
Ser	Gln	Ala	Arg	Glu	Pro	Gly	Val	Thr	Ala	Ser	Leu	Arg	Cys	His	Ala
		355					360					365			
Glu	Gly	Ile	Pro	Lys	Pro	Gln	Leu	Gly	Trp	Leu	Lys	Asn	Gly	Ile	Asp
370						375					380				
Ile	Thr	Pro	Lys	Leu	Ser	Lys	Gln	Leu	Thr	Leu	Gln	Ala	Asn	Gly	Ser
385					390					395					400
Glu	Val	His	Ile	Ser	Asn	Val	Arg	Tyr	Glu	Asp	Thr	Gly	Ala	Tyr	Thr
				405					410					415	
Cys	Ile	Ala	Lys	Asn	Glu	Ala	Gly	Val	Tyr	Glu	Asp	Ile	Ser	Ser	Leu
			420					425					430		
Phe	Val	Glu	Asp	Ser	Ala	Arg	Lys	Thr	Leu	Ala	Asn	Ile	Leu	Trp	Arg
		435					440					445			
Glu	Glu	Gly	Leu	Gly	Ile	Gly	Asn	Met	Phe	Tyr	Val	Phe	Tyr	Glu	Asp
450						455					460				
Gly	Ile	Lys	Val	Ile	Gln	Pro	Ile	Glu	Cys	Glu	Phe	Gln	Arg	His	Ile
465					470					475					480
Lys	Pro	Ser	Glu	Lys	Leu	Leu	Gly	Phe	Gln	Asp	Glu	Val	Cys	Pro	Lys
				485					490					495	
Ala	Glu	Gly	Asp	Glu	Val	Gln	Arg	Cys	Val	Trp	Ala	Ser	Ala	Val	Asn
			500					505					510		
Val	Lys	Asp	Lys	Phe	Ile	Tyr	Val	Ala	Gln	Pro	Thr	Leu	Asp	Arg	Val
		515					520					525			
Leu	Ile	Val	Asp	Val	Gln	Ser	Gln	Lys	Val	Val	Gln	Ala	Val	Ser	Thr
530						535					540				
Asp	Pro	Val	Pro	Val	Lys	Leu	His	Tyr	Asp	Lys	Ser	His	Asp	Gln	Val
545					550					555					560
Trp	Val	Leu	Ser	Trp	Gly	Thr	Leu	Glu	Lys	Thr	Ser	Pro	Thr	Leu	Gln
				565					570					575	
Val	Ile	Thr	Leu	Ala	Ser	Gly	Asn	Val	Pro	His	His	Thr	Ile	His	Thr
			580					585					590		
Gln	Pro	Val	Gly	Lys	Gln	Phe	Asp	Arg	Val	Asp	Asp	Phe	Phe	Ile	Pro
		595					600					605			
Thr	Thr	Thr	Leu	Ile	Ile	Thr	His	Met	Arg	Phe	Gly	Phe	Ile	Leu	His
610						615					620				
Lys	Asp	Glu	Ala	Ala	Leu	Gln	Lys	Ile	Asp	Leu	Glu	Thr	Met	Ser	Tyr
625					630					635					640
Ile	Lys	Thr	Ile	Asn	Leu	Lys	Asp	Tyr	Lys	Cys	Val	Pro	Gln	Ser	Leu
				645					650					655	
Ala	Tyr	Thr	His	Leu	Gly	Gly	Tyr	Tyr	Phe	Ile	Gly	Cys	Lys	Pro	Asp
			660					665					670		
Ser	Thr	Gly	Ala	Val	Ser	Pro	Gln	Val	Met	Val	Asp	Gly	Val	Thr	Asp
		675					680					685			
Ser	Val	Ile	Gly	Phe	Asn	Ser	Asp	Val	Thr	Gly	Thr	Pro	Tyr	Val	Ser
690						695					700				
Pro	Asp	Gly	His	Tyr	Leu	Val	Ser	Ile	Asn	Asp	Val	Lys	Gly	Leu	Val
705					710					715					720

Arg Val Gln Tyr Ile Thr Ile Arg Gly Glu Ile Gln Glu Ala Phe Asp
 725 730 735
 Ile Tyr Thr Asn Leu His Ile Ser Asp Leu Ala Phe Gln Pro Ser Phe
 740 745 750
 Thr Glu Ala His Gln Tyr Asn Ile Tyr Gly Ser Ser Ser Thr Gln Thr
 755 760 765
 Asp Val Leu Phe Val Glu Leu Ser Ser Gly Lys Val Lys Met Ile Lys
 770 775 780
 Ser Leu Lys Glu Pro Leu Lys Ala Glu Glu Trp Pro Trp Asn Arg Lys
 785 790 795 800
 Asn Arg Gln Ile Gln Asp Ser Gly Leu Phe Gly Gln Tyr Leu Met Thr
 805 810 815
 Pro Ser Lys Asp Ser Leu Phe Ile Leu Asp Gly Arg Leu Asn Lys Leu
 820 825 830
 Asn Cys Glu Ile Thr Glu Val Glu Lys Gly Asn Thr Val Ile Trp Val
 835 840 845
 Gly Asp Ala
 850 851

<210> 987
 <211> 804
 <212> PRT
 <213> Homo sapiens

<400> 987
 Met Arg Ala Leu Trp Val Leu Gly Leu Cys Cys Val Leu Leu Thr Phe
 1 5 10 15
 Gly Ser Val Arg Ala Asp Asp Glu Val Asp Val Asp Gly Thr Val Glu
 20 25 30
 Glu Asp Leu Gly Lys Ser Arg Glu Gly Ser Arg Thr Asp Asp Glu Val
 35 40 45
 Val Gln Arg Glu Glu Glu Ala Ile Gln Leu Asp Gly Leu Asn Ala Ser
 50 55 60
 Gln Ile Arg Glu Leu Arg Glu Lys Ser Glu Lys Phe Ala Phe Gln Ala
 65 70 75 80
 Glu Val Asn Arg Met Met Lys Leu Ile Ile Asn Ser Leu Tyr Lys Asn
 85 90 95
 Lys Glu Ile Phe Leu Arg Glu Leu Ile Ser Asn Ala Ser Asp Ala Leu
 100 105 110
 Asp Lys Ile Arg Leu Ile Ser Leu Thr Asp Glu Asn Ala Leu Ser Gly
 115 120 125
 Asn Glu Glu Leu Thr Val Lys Ile Lys Cys Asp Lys Glu Lys Asn Leu
 130 135 140
 Leu His Val Thr Asp Thr Gly Val Gly Met Thr Arg Glu Glu Leu Val
 145 150 155 160
 Lys Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Ser Glu Phe Leu Asn
 165 170 175
 Lys Met Thr Glu Ala Gln Glu Asp Gly Gln Ser Thr Ser Glu Leu Ile
 180 185 190
 Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Phe Leu Val Ala Asp Lys
 195 200 205
 Val Ile Val Thr Ser Lys His Asn Asn Asp Thr Gln His Ile Trp Glu
 210 215 220
 Ser Asp Ser Asn Glu Phe Ser Val Ile Ala Asp Pro Arg Gly Asn Thr
 225 230 235 240
 Leu Gly Arg Gly Thr Thr Ile Thr Leu Val Leu Lys Glu Glu Ala Ser
 245 250 255
 Asp Tyr Leu Glu Leu Asp Thr Ile Lys Asn Leu Val Lys Lys Tyr Ser
 260 265 270
 Gln Phe Ile Asn Phe Pro Ile Tyr Val Trp Ser Ser Lys Thr Glu Thr
 275 280 285

Val Glu Glu Pro Met Glu Glu Glu Glu Ala Ala Lys Glu Glu Lys Glu
290 295 300
Glu Ser Asp Asp Glu Ala Ala Val Glu Glu Glu Glu Glu Lys Lys
305 310 315 320
Pro Lys Thr Lys Lys Val Glu Lys Thr Val Trp Asp Trp Glu Leu Met
325 330 335
Asn Asp Ile Lys Pro Ile Trp Gln Arg Pro Ser Lys Glu Val Glu Glu
340 345 350
Asp Glu Tyr Lys Ala Phe Tyr Lys Ser Phe Ser Lys Glu Ser Asp Asp
355 360 365
Pro Met Ala Tyr Ile His Phe Thr Ala Glu Gly Glu Val Thr Phe Lys
370 375 380
Ser Ile Leu Phe Val Pro Thr Ser Ala Pro Arg Gly Leu Phe Asp Glu
385 390 395 400
Tyr Gly Ser Lys Lys Ser Asp Tyr Ile Lys Leu Tyr Val Arg Arg Val
405 410 415
Phe Ile Thr Asp Asp Phe His Asp Met Met Pro Lys Tyr Leu Asn Phe
420 425 430
Val Lys Gly Val Val Asp Ser Asp Asp Leu Pro Leu Asn Val Ser Arg
435 440 445
Glu Thr Leu Gln Gln His Lys Leu Leu Lys Val Ile Arg Lys Lys Leu
450 455 460
Val Arg Lys Thr Leu Asp Met Ile Lys Lys Ile Ala Asp Asp Lys Tyr
465 470 475 480
Asn Asp Thr Phe Trp Lys Glu Phe Gly Thr Asn Ile Lys Leu Gly Val
485 490 495
Ile Glu Asp His Ser Asn Arg Thr Arg Leu Ala Lys Leu Leu Arg Phe
500 505 510
Gln Ser Ser His His Pro Thr Asp Ile Thr Ser Leu Asp Gln Tyr Val
515 520 525
Glu Arg Met Lys Glu Lys Gln Asp Lys Ile Tyr Phe Met Ala Gly Ser
530 535 540
Ser Arg Lys Glu Ala Glu Ser Ser Pro Phe Val Glu Arg Leu Leu Lys
545 550 555 560
Lys Gly Tyr Glu Val Ile Tyr Leu Thr Glu Pro Val Asp Glu Tyr Cys
565 570 575
Ile Gln Ala Leu Pro Glu Phe Asp Gly Lys Arg Phe Gln Asn Val Ala
580 585 590
Lys Glu Gly Val Lys Phe Asp Glu Ser Glu Lys Thr Lys Glu Ser Arg
595 600 605
Glu Ala Val Glu Lys Glu Phe Glu Pro Leu Leu Asn Trp Met Lys Asp
610 615 620
Lys Ala Leu Lys Asp Lys Ile Glu Lys Ala Val Val Ser Gln Arg Leu
625 630 635 640
Thr Glu Ser Pro Cys Ala Leu Val Ala Ser Gln Tyr Gly Trp Ser Gly
645 650 655
Asn Met Glu Arg Ile Met Lys Ala Gln Ala Tyr Gln Thr Gly Lys Asp
660 665 670
Ile Ser Thr Asn Tyr Tyr Ala Ser Gln Lys Lys Thr Phe Glu Ile Asn
675 680 685
Pro Arg His Pro Leu Ile Arg Asp Met Leu Arg Arg Ile Lys Glu Asp
690 695 700
Glu Asp Asp Lys Thr Val Leu Asp Leu Ala Val Val Leu Phe Glu Thr
705 710 715 720
Ala Thr Leu Arg Ser Gly Tyr Leu Leu Pro Asp Thr Lys Ala Tyr Gly
725 730 735
Asp Arg Ile Glu Arg Met Leu Arg Leu Ser Leu Asn Ile Asp Pro Asp
740 745 750
Ala Lys Val Glu Glu Glu Pro Glu Glu Glu Pro Glu Glu Thr Ala Glu
755 760 765
Asp Thr Thr Glu Asp Thr Glu Gln Asp Glu Asp Glu Glu Met Asp Val
770 775 780
Gly Thr Asp Glu Glu Glu Glu Thr Ala Lys Glu Ser Thr Ala Glu Lys
785 790 795 800

Asp Glu Leu *
803

<210> 988
<211> 83
<212> PRT
<213> Homo sapiens

<400> 988
Leu Arg Asn Ser Ala Arg Gly Arg Leu Gln Gln Ile Gly Ala Met Ala
1 5 10 15
Leu Glu Gln Asn Gln Ser Thr Asp Tyr Tyr Tyr Glu Glu Asn Glu Met
20 25 30
Asn Gly Thr Tyr Asp Tyr Ser Gln Tyr Glu Leu Ile Cys Ile Lys Glu
35 40 45
Asp Val Arg Glu Phe Ala Lys Val Phe Leu Pro Val Phe Leu Thr Ile
50 55 60
Val Phe Val Ile Gly Leu Ala Gly Asn Ser Met Val Val Ala Ile Tyr
65 70 75 80
Ala Lys His
83

<210> 989
<211> 140
<212> PRT
<213> Homo sapiens

<400> 989
Met Lys Glu Lys Met Trp Gln Asn Val Leu Cys Cys Thr Leu Gln Thr
1 5 10 15
Ala Val Ile Leu Lys Leu Phe Gln Asn Lys Val Leu Asn Ile Leu Lys
20 25 30
Asn Phe Phe Leu Ser Pro Leu Asp Thr Arg Lys Asn Lys Val Phe Lys
35 40 45
Lys Trp Ala Gly Gly Pro Gly Ala Val Ala His Ala Cys Asn Pro Ser
50 55 60
Thr Leu Gly Gly Arg Gly Gly Arg Ile Thr Lys Ser Gly Asp Arg Asp
65 70 75 80
His Pro Gly Gln His Gly Glu Thr Arg Ser Leu Leu Lys Val Gln Lys
85 90 95
Ile Ser Gln Val Trp Trp Gln Met Thr Val Gly Gln Ala Asn Trp Glu
100 105 110
Ala Glu Ala Gly Glu Trp Cys Glu Pro Gly Glu Gly Arg Ala Cys Ser
115 120 125
Glu Pro Arg Ser Pro Thr Ala Leu Gln Thr Gly *
130 135 139

<210> 990
<211> 273
<212> PRT
<213> Homo sapiens

<400> 990
Met His Leu Arg Leu Ile Ser Trp Leu Phe Ile Ile Leu Asn Phe Met
1 5 10 15

Glu	Tyr	Ile	Gly	Ser	Gln	Asn	Ala	Ser	Arg	Gly	Arg	Arg	Gln	Arg	Arg
			20					25					30		
Met	His	Pro	Asn	Val	Ser	Gln	Gly	Cys	Gln	Gly	Gly	Cys	Ala	Thr	Cys
		35					40					45			
Ser	Asp	Tyr	Asn	Gly	Cys	Leu	Ser	Cys	Lys	Pro	Arg	Leu	Phe	Phe	Ala
	50				55						60				
Leu	Glu	Arg	Ile	Gly	Met	Lys	Gln	Ile	Gly	Val	Cys	Leu	Ser	Ser	Cys
65					70				75						80
Pro	Ser	Gly	Tyr	Tyr	Gly	Thr	Arg	Tyr	Pro	Asp	Ile	Asn	Lys	Cys	Thr
			85					90						95	
Lys	Cys	Lys	Ala	Asp	Cys	Asp	Thr	Cys	Phe	Asn	Lys	Asn	Phe	Cys	Thr
			100					105					110		
Lys	Cys	Lys	Ser	Gly	Phe	Tyr	Leu	His	Leu	Gly	Lys	Cys	Leu	Asp	Asn
		115					120					125			
Cys	Pro	Glu	Gly	Leu	Glu	Ala	Asn	Asn	His	Thr	Met	Glu	Cys	Val	Ser
		130				135					140				
Ile	Val	His	Cys	Glu	Val	Ser	Glu	Trp	Asn	Pro	Trp	Ser	Pro	Cys	Thr
145					150					155					160
Lys	Lys	Gly	Lys	Thr	Cys	Gly	Phe	Lys	Arg	Gly	Thr	Glu	Thr	Arg	Val
				165					170					175	
Arg	Glu	Ile	Ile	Gln	His	Pro	Ser	Ala	Lys	Gly	Asn	Leu	Cys	Pro	Pro
			180					185					190		
Thr	Asn	Glu	Thr	Arg	Lys	Cys	Thr	Val	Gln	Arg	Lys	Lys	Cys	Gln	Lys
		195					200					205			
Gly	Glu	Arg	Gly	Lys	Lys	Gly	Arg	Glu	Arg	Lys	Arg	Lys	Lys	Pro	Asn
	210				215						220				
Lys	Gly	Glu	Ser	Lys	Glu	Ala	Ile	Pro	Asp	Ser	Lys	Ser	Leu	Glu	Ser
225					230					235					240
Ser	Lys	Glu	Ile	Pro	Glu	Gln	Arg	Glu	Asn	Lys	Gln	Gln	Gln	Lys	Lys
				245					250					255	
Arg	Lys	Val	Gln	Asp	Lys	Gln	Lys	Ser	Val	Ser	Val	Ser	Thr	Val	His
			260					265					270		272

*

<210> 991
 <211> 265
 <212> PRT
 <213> Homo sapiens

<400> 991

Met	Asp	Pro	Thr	Ile	Ser	Thr	Leu	Asp	Thr	Glu	Leu	Thr	Pro	Ile	Asn
1				5					10					15	
Gly	Thr	Glu	Glu	Thr	Leu	Cys	Tyr	Lys	Gln	Thr	Leu	Ser	Leu	Thr	Val
			20					25					30		
Leu	Thr	Cys	Ile	Val	Ser	Leu	Val	Gly	Leu	Thr	Gly	Asn	Ala	Val	Val
		35					40					45			
Leu	Trp	Leu	Leu	Gly	Cys	Arg	Met	Arg	Arg	Asn	Ala	Phe	Ser	Ile	Tyr
	50				55						60				
Ile	Leu	Asn	Leu	Ala	Ala	Ala	Asp	Phe	Leu	Phe	Leu	Ser	Gly	Arg	Leu
65					70				75						80
Ile	Tyr	Ser	Leu	Leu	Ser	Phe	Ile	Ser	Ile	Pro	His	Thr	Ile	Ser	Lys
			85					90						95	
Ile	Leu	Tyr	Pro	Val	Met	Met	Phe	Ser	Tyr	Phe	Ala	Gly	Leu	Ser	Met
			100					105					110		
Leu	Ser	Thr	Ile	Ser	Thr	Glu	His	Arg	Leu	Ser	Val	Leu	Trp	Pro	Ile
		115					120					125			
Trp	Tyr	Cys	Cys	His	Cys	Pro	Thr	His	Leu	Ser	Ala	Val	Met	Cys	Val
	130					135					140				
Leu	Leu	Trp	Ala	Leu	Ser	Leu	Leu	Gln	Ser	Ile	Leu	Glu	Trp	Met	Phe
145					150					155					160

Cys	Ser	Phe	Leu	Phe	Ser	Asp	Val	Asp	Ser	Asp	Asn	Trp	Cys	Gln	Ile
				165					170					175	
Leu	Asp	Phe	Leu	Thr	Val	Ala	Trp	Leu	Ile	Phe	Leu	Ile	Cys	Gly	Ser
			180					185					190		
Leu	Trp	Val	His	Pro	Gly	Pro	Ala	Asp	Gln	Asp	His	Met	Trp	Ile	Pro
		195				200					205				
Glu	Asp	Thr	Ala	Asp	Gln	Ala	Val	Cys	Asp	His	Pro	Ala	His	Arg	Ala
	210					215					220				
Gly	Leu	Pro	Pro	Leu	Trp	Pro	Ala	Pro	Gln	His	Ser	Val	Phe	Pro	Ile
225					230					235					240
Ile	Leu	Asp	Pro	Arg	Gly	Gln	Gly	Ser	Leu	Ile	Leu	Ser	Cys	Ser	Ser
			245						250					255	
Ser	Phe	Tyr	Phe	Pro	Val	Arg	Ser	*							
			260				264								

<210> 992
 <211> 79
 <212> PRT
 <213> Homo sapiens

<400> 992

Met	Arg	Pro	Cys	Ile	Trp	Ile	His	Val	His	Leu	Lys	Pro	Pro	Cys	Arg
1				5					10					15	
Leu	Val	Glu	Leu	Leu	Pro	Phe	Ser	Ser	Ala	Leu	Gln	Gly	Leu	Ser	His
			20				25						30		
Leu	Ser	Leu	Gly	Thr	Thr	Leu	Pro	Val	Ile	Leu	Pro	Glu	Arg	Asn	Glu
		35				40						45			
Glu	Gln	Asn	Leu	Gln	Glu	Leu	Ser	His	Asn	Ala	Asp	Lys	Tyr	Gln	Met
	50					55					60				
Gly	Asp	Cys	Cys	Lys	Glu	Glu	Ile	Asp	Asp	Ser	Ile	Phe	Tyr	*	
65					70					75			78		

<210> 993
 <211> 646
 <212> PRT
 <213> Homo sapiens

<400> 993

Met	Asp	Phe	Ser	Phe	Ser	Phe	Met	Gln	Gly	Ile	Met	Gly	Asn	Thr	Ile
1				5					10					15	
Gln	Gln	Pro	Pro	Gln	Leu	Ile	Asp	Ser	Ala	Asn	Ile	Arg	Gln	Glu	Asp
		20					25						30		
Ala	Phe	Asp	Asn	Asn	Ser	Asp	Ile	Ala	Glu	Asp	Gly	Gly	Gln	Thr	Pro
		35				40						45			
Tyr	Glu	Ala	Thr	Leu	Gln	Gln	Gly	Phe	Gln	Tyr	Pro	Ala	Thr	Thr	Glu
	50					55					60				
Asp	Leu	Pro	Pro	Leu	Thr	Asn	Gly	Tyr	Pro	Ser	Ser	Ile	Ser	Val	Tyr
65					70				75					80	
Glu	Thr	Gln	Thr	Lys	Tyr	Gln	Ser	Tyr	Asn	Gln	Tyr	Pro	Asn	Gly	Ser
				85					90					95	
Ala	Asn	Gly	Phe	Gly	Ala	Val	Arg	Asn	Phe	Ser	Pro	Thr	Asp	Tyr	Tyr
		100						105					110		
His	Ser	Glu	Ile	Pro	Asn	Thr	Arg	Pro	His	Glu	Ile	Leu	Glu	Lys	Pro
		115				120						125			
Ser	Pro	Pro	Gln	Pro	Pro	Pro	Pro	Pro	Ser	Val	Pro	Gln	Thr	Val	Ile
	130					135					140				
Pro	Lys	Lys	Thr	Gly	Ser	Pro	Glu	Ile	Lys	Leu	Lys	Ile	Thr	Lys	Thr
145					150					155					160

Ile Gln Asn Gly Arg Glu Leu Phe Glu Ser Ser Leu Cys Gly Asp Leu
165 170 175
Leu Asn Glu Val Gln Ala Ser Glu His Thr Lys Ser Lys His Glu Ser
180 185 190
Arg Lys Glu Lys Arg Lys Lys Ser Asn Lys His Asp Ser Ser Arg Ser
195 200 205
Glu Glu Arg Lys Ser His Lys Ile Pro Lys Leu Glu Pro Glu Glu Gln
210 215 220
Asn Arg Pro Asn Glu Arg Val Asp Thr Val Ser Glu Lys Pro Arg Glu
225 230 235 240
Glu Pro Val Leu Lys Glu Glu Ala Pro Val Gln Pro Ile Leu Ser Ser
245 250 255
Val Pro Thr Thr Glu Val Ser Thr Gly Val Lys Phe Gln Val Gly Asp
260 265 270
Leu Val Trp Ser Lys Val Gly Thr Tyr Pro Trp Trp Pro Cys Met Val
275 280 285
Ser Ser Asp Pro Gln Leu Glu Val His Thr Lys Ile Asn Thr Arg Gly
290 295 300
Ala Arg Glu Tyr His Val Gln Phe Phe Ser Asn Gln Pro Glu Arg Ala
305 310 315 320
Trp Val His Glu Lys Arg Val Arg Glu Tyr Lys Gly His Lys Gln Tyr
325 330 335
Glu Glu Leu Leu Ala Glu Ala Thr Lys Gln Ala Ser Asn His Ser Glu
340 345 350
Lys Gln Lys Ile Arg Lys Pro Arg Pro Gln Arg Glu Arg Ala Gln Trp
355 360 365
Asp Ile Gly Ile Ala His Ala Glu Lys Ala Leu Lys Met Thr Arg Glu
370 375 380
Glu Arg Ile Glu Gln Tyr Thr Phe Ile Tyr Ile Asp Lys Gln Pro Glu
385 390 395 400
Glu Ala Leu Ser Gln Ala Lys Lys Ser Val Ala Ser Lys Thr Glu Val
405 410 415
Lys Lys Thr Arg Arg Pro Arg Ser Val Leu Asn Thr Gln Pro Glu Gln
420 425 430
Thr Asn Ala Gly Glu Val Ala Ser Ser Leu Ser Ser Thr Glu Ile Arg
435 440 445
Arg His Ser Gln Arg Arg His Thr Ser Ala Glu Glu Glu Glu Pro Pro
450 455 460
Pro Val Lys Ile Ala Trp Lys Thr Ala Ala Ala Arg Lys Ser Leu Pro
465 470 475 480
Ala Ser Ile Thr Met His Lys Gly Ser Leu Asp Leu Gln Lys Cys Asn
485 490 495
Met Ser Pro Val Val Lys Ile Glu Gln Val Phe Ala Leu Gln Asn Ala
500 505 510
Thr Gly Asp Gly Lys Phe Ile Asp Gln Phe Val Tyr Ser Thr Lys Gly
515 520 525
Ile Gly Asn Lys Thr Glu Ile Ser Val Arg Gly Gln Asp Arg Leu Ile
530 535 540
Ile Ser Thr Pro Asn Gln Arg Asn Glu Lys Pro Thr Gln Ser Val Ser
545 550 555 560
Ser Pro Glu Ala Thr Ser Gly Ser Thr Gly Ser Val Glu Lys Lys Gln
565 570 575
Gln Arg Arg Ser Ile Arg Thr Arg Ser Glu Ser Glu Lys Ser Thr Glu
580 585 590
Val Val Pro Lys Lys Lys Ile Lys Lys Glu Gln Val Glu Thr Val Pro
595 600 605
Gln Ala Thr Val Lys Thr Gly Leu Gln Lys Gly Ser Ala Asp Arg Gly
610 615 620
Val Gln Gly Ser Val Arg Phe Ser Asp Ser Ser Val Ser Ala Ala Ile
625 630 635 640
Glu Glu Thr Val Asp *
645

<210> 994
 <211> 456
 <212> PRT
 <213> Homo sapiens

<400> 994

Met	Ser	Ser	Ser	Gly	Leu	Asn	Ser	Glu	Lys	Val	Ala	Ala	Leu	Ile	Gln	1	5	10	15
Lys	Leu	Asn	Ser	Asp	Pro	Gln	Phe	Val	Leu	Ala	Gln	Asn	Val	Gly	Thr	20	25	30	
Thr	His	Asp	Leu	Leu	Asp	Ile	Cys	Leu	Lys	Arg	Ala	Thr	Val	Gln	Arg	35	40	45	
Ala	Gln	His	Val	Phe	Gln	His	Ala	Val	Pro	Gln	Glu	Gly	Lys	Pro	Ile	50	55	60	
Thr	Asn	Gln	Lys	Ser	Ser	Gly	Arg	Cys	Trp	Ile	Phe	Ser	Cys	Leu	Asn	65	70	75	80
Val	Met	Arg	Leu	Pro	Phe	Met	Lys	Lys	Leu	Asn	Ile	Glu	Glu	Phe	Glu	85	90	95	
Phe	Ser	Gln	Ser	Tyr	Leu	Phe	Phe	Trp	Asp	Lys	Val	Glu	Arg	Cys	Tyr	100	105	110	
Phe	Phe	Leu	Ser	Ala	Phe	Val	Asp	Thr	Ala	Gln	Arg	Lys	Glu	Pro	Glu	115	120	125	
Asp	Gly	Arg	Leu	Val	Gln	Phe	Leu	Leu	Met	Asn	Pro	Ala	Asn	Asp	Gly	130	135	140	
Gly	Gln	Trp	Asp	Met	Leu	Val	Asn	Ile	Val	Glu	Lys	Tyr	Gly	Val	Ile	145	150	155	160
Pro	Lys	Lys	Cys	Phe	Pro	Glu	Ser	Tyr	Thr	Thr	Glu	Ala	Thr	Arg	Arg	165	170	175	
Met	Asn	Asp	Ile	Leu	Asn	His	Lys	Met	Arg	Glu	Phe	Cys	Ile	Arg	Leu	180	185	190	
Arg	Asn	Leu	Val	His	Ser	Gly	Ala	Thr	Lys	Gly	Glu	Ile	Ser	Ala	Thr	195	200	205	
Gln	Asp	Val	Met	Met	Glu	Glu	Ile	Phe	Arg	Val	Val	Cys	Ile	Cys	Leu	210	215	220	
Gly	Asn	Pro	Pro	Glu	Thr	Phe	Thr	Trp	Glu	Tyr	Arg	Asp	Lys	Asp	Lys	225	230	235	240
Asn	Tyr	Gln	Lys	Ile	Gly	Pro	Ile	Thr	Pro	Leu	Glu	Phe	Tyr	Arg	Glu	245	250	255	
His	Val	Lys	Pro	Leu	Phe	Asn	Met	Glu	Asp	Lys	Ile	Cys	Leu	Val	Asn	260	265	270	
Asp	Pro	Arg	Pro	Gln	His	Lys	Tyr	Asn	Lys	Leu	Tyr	Thr	Val	Glu	Tyr	275	280	285	
Leu	Ser	Asn	Met	Val	Gly	Gly	Arg	Lys	Thr	Leu	Tyr	Asn	Asn	Gln	Pro	290	295	300	
Ile	Asp	Phe	Leu	Lys	Lys	Met	Val	Ala	Ala	Ser	Ile	Lys	Asp	Gly	Glu	305	310	315	320
Ala	Val	Trp	Phe	Gly	Cys	Asp	Val	Gly	Lys	His	Phe	Asn	Ser	Lys	Leu	325	330	335	
Gly	Leu	Ser	Asp	Met	Asn	Leu	Tyr	Asp	His	Glu	Leu	Val	Phe	Gly	Val	340	345	350	
Ser	Leu	Lys	Asn	Met	Asn	Lys	Ala	Glu	Arg	Leu	Thr	Phe	Gly	Glu	Ser	355	360	365	
Leu	Met	Thr	His	Ala	Met	Thr	Phe	Thr	Ala	Val	Ser	Glu	Lys	Asp	Asp	370	375	380	
Gln	Asp	Gly	Ala	Phe	Thr	Lys	Trp	Arg	Val	Glu	Asn	Ser	Trp	Gly	Glu	385	390	395	400
Asp	His	Gly	His	Lys	Gly	Tyr	Leu	Cys	Met	Thr	Asp	Glu	Trp	Phe	Ser	405	410	415	
Glu	Tyr	Val	Tyr	Glu	Val	Val	Val	Asp	Arg	Lys	His	Val	Pro	Glu	Glu	420	425	430	
Val	Leu	Ala	Val	Leu	Glu	Gln	Glu	Pro	Ile	Ile	Leu	Pro	Ala	Trp	Asp	435	440	445	

Pro Met Gly Ala Leu Ala Glu *
 450 455

<210> 995
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 995
 Met Arg Leu Arg Phe Asn Asn Asp Arg Met Lys Thr Thr Ile Lys Glu
 1 5 10 15
 Thr Thr Ile Leu Ser Ser Ala Ile Leu Thr Phe Leu Thr Tyr Leu Met
 20 25 30
 Lys Met Ser Phe Glu Arg Cys Thr Ala Arg Asn Lys Met Phe Val Asn
 35 40 45
 Ser Pro Phe Tyr Pro Arg Val Asp Asn Tyr Cys Thr Ser Ser Trp Lys
 50 55 60
 Lys Phe Tyr Leu Lys Cys Tyr Phe Ser Leu Asn Thr Ile Lys Lys Glu
 65 70 75 80
 Lys Lys Met Thr *
 84

<210> 996
 <211> 801
 <212> PRT
 <213> Homo sapiens

<400> 996
 Met Leu Ile Gln Ser Glu Lys Lys Thr Gln Leu Ser Lys Thr Glu Ser
 1 5 10 15
 Val Lys Glu Ser Glu Ser Leu Met Glu Phe Ala Gln Pro Glu Ile Gln
 20 25 30
 Pro Gln Glu Phe Leu Asn Arg Arg Tyr Met Thr Glu Val Asp Tyr Ser
 35 40 45
 Asn Lys Gln Gly Glu Glu Gln Pro Trp Glu Ala Asp Tyr Ala Arg Lys
 50 55 60
 Pro Asn Leu Pro Lys Arg Trp Asp Met Leu Thr Glu Pro Asp Gly Gln
 65 70 75 80
 Glu Lys Lys Gln Glu Ser Phe Lys Ser Trp Glu Ala Ser Gly Lys His
 85 90 95
 Gln Glu Val Ser Lys Pro Ala Val Ser Leu Glu Gln Arg Lys Gln Asp
 100 105 110
 Thr Ser Lys Leu Arg Ser Thr Leu Pro Glu Glu Gln Lys Lys Gln Glu
 115 120 125
 Ile Ser Lys Ser Lys Pro Ser Pro Ser Gln Trp Lys Gln Asp Thr Pro
 130 135 140
 Lys Ser Lys Ala Gly Tyr Val Gln Glu Glu Gln Lys Lys Gln Glu Thr
 145 150 155 160
 Pro Lys Leu Trp Pro Val Gln Leu Gln Lys Glu Gln Asp Pro Lys Lys
 165 170 175
 Gln Thr Pro Lys Ser Trp Thr Pro Ser Met Gln Ser Glu Gln Asn Thr
 180 185 190
 Thr Lys Ser Trp Thr Thr Pro Met Cys Glu Glu Gln Asp Ser Lys Gln
 195 200 205
 Pro Glu Thr Pro Lys Ser Trp Glu Asn Asn Val Glu Ser Gln Lys His
 210 215 220
 Ser Leu Thr Ser Gln Ser Gln Ile Ser Pro Lys Ser Trp Gly Val Ala
 225 230 235 240

Thr	Ala	Ser	Leu	Ile	Pro	Asn	Asp	Gln	Leu	Leu	Pro	Arg	Lys	Leu	Asn
				245					250					255	
Thr	Glu	Pro	Lys	Asp	Val	Pro	Lys	Pro	Val	His	Gln	Pro	Val	Gly	Ser
			260					265					270		
Ser	Ser	Thr	Leu	Pro	Lys	Asp	Pro	Val	Leu	Arg	Lys	Glu	Lys	Leu	Gln
		275					280					285			
Asp	Leu	Met	Thr	Gln	Ile	Gln	Gly	Thr	Cys	Asn	Phe	Met	Gln	Glu	Ser
	290					295				300					
Val	Leu	Asp	Phe	Asp	Lys	Pro	Ser	Ser	Ala	Ile	Pro	Thr	Ser	Gln	Pro
305					310				315					320	
Pro	Ser	Ala	Thr	Pro	Gly	Ser	Pro	Val	Ala	Ser	Lys	Glu	Gln	Asn	Leu
				325					330					335	
Ser	Ser	Gln	Ser	Asp	Phe	Leu	Gln	Glu	Pro	Leu	Gln	Ala	Thr	Ser	Ser
			340					345					350		
Pro	Val	Thr	Cys	Ser	Ser	Asn	Ala	Cys	Leu	Val	Thr	Thr	Asp	Gln	Ala
		355				360						365			
Ser	Ser	Gly	Ser	Glu	Thr	Glu	Phe	Met	Thr	Ser	Glu	Thr	Pro	Glu	Ala
	370					375					380				
Ala	Ile	Pro	Pro	Gly	Lys	Gln	Pro	Ser	Ser	Leu	Ala	Ser	Pro	Asn	Pro
385					390					395				400	
Pro	Met	Ala	Lys	Gly	Ser	Glu	Gln	Gly	Phe	Gln	Ser	Pro	Pro	Ala	Ser
				405					410					415	
Ser	Ser	Ser	Val	Thr	Ile	Asn	Thr	Ala	Pro	Phe	Gln	Ala	Met	Gln	Thr
			420					425					430		
Val	Phe	Asn	Val	Asn	Ala	Pro	Leu	Pro	Pro	Arg	Lys	Glu	Gln	Glu	Ile
		435					440					445			
Lys	Glu	Ser	Pro	Tyr	Ser	Pro	Gly	Tyr	Asn	Gln	Ser	Phe	Thr	Thr	Ala
	450					455					460				
Ser	Thr	Gln	Thr	Pro	Pro	Gln	Cys	Gln	Leu	Pro	Ser	Ile	His	Val	Glu
465					470					475				480	
Gln	Thr	Val	His	Ser	Gln	Glu	Thr	Ala	Asn	Tyr	His	Pro	Asp	Gly	Thr
				485					490					495	
Ile	Gln	Val	Ser	Asn	Gly	Ser	Leu	Ala	Phe	Tyr	Pro	Ala	Gln	Thr	Asn
			500					505					510		
Val	Phe	Pro	Arg	Pro	Thr	Gln	Pro	Phe	Val	Asn	Ser	Arg	Gly	Ser	Val
		515					520					525			
Arg	Gly	Cys	Thr	Arg	Gly	Gly	Arg	Leu	Ile	Thr	Asn	Ser	Tyr	Arg	Ser
	530				535						540				
Pro	Gly	Gly	Tyr	Lys	Gly	Phe	Asp	Thr	Tyr	Arg	Gly	Leu	Pro	Ser	Ile
545					550					555				560	
Ser	Asn	Gly	Asn	Tyr	Ser	Gln	Leu	Gln	Phe	Gln	Ala	Arg	Glu	Tyr	Ser
				565					570					575	
Gly	Ala	Pro	Tyr	Ser	Gln	Arg	Cys	Leu	Glu	Thr	Ser	Glu	Pro	Leu	Trp
			580					585					590		
Leu	Leu	Gly	Lys	Ala	Arg	Ile	Ile	Ser	Ser	Ser	Val	Ile	Ser	Glu	Glu
		595					600					605			
Gly	His	Leu	Val	Val	His	Glu	Gln	Ile	Arg	Glu	Val	Ser	Ser	Pro	Glu
	610					615					620				
Arg	Asp	Asn	Glu	Thr	Phe	Asn	Ser	Gly	Asp	Ser	Gly	Gln	Gly	Asp	Ser
625					630					635				640	
Arg	Ser	Met	Thr	Pro	Val	Asp	Val	Pro	Val	Thr	Asn	Pro	Ala	Ala	Thr
				645					650					655	
Ile	Leu	Pro	Val	His	Val	Tyr	Pro	Leu	Pro	Gln	Gln	Met	Arg	Val	Ala
			660					665					670		
Phe	Ser	Ala	Ala	Arg	Thr	Ser	Asn	Leu	Ala	Pro	Gly	Thr	Leu	Asp	Gln
		675					680					685			
Pro	Ile	Val	Phe	Asp	Leu	Leu	Leu	Asn	Asn	Leu	Gly	Glu	Thr	Phe	Asp
	690					695					700				
Leu	Gln	Leu	Gly	Arg	Phe	Asn	Cys	Pro	Val	Asn	Gly	Thr	Tyr	Val	Phe
705					710					715				720	
Ile	Phe	His	Met	Leu	Lys	Leu	Ala	Val	Asn	Val	Pro	Leu	Tyr	Val	Asn
				725					730					735	
Leu	Met	Lys	Asn	Glu	Glu	Val	Leu	Val	Ser	Ala	Tyr	Ala	Asn	Asp	Gly
			740					745					750		

Ala Pro Asp His Glu Thr Ala Ser Asn His Ala Ile Leu Gln Leu Phe
 755 760 765
 Gln Gly Asp Gln Ile Trp Leu Arg Leu His Arg Gly Ala Ile Tyr Gly
 770 775 780
 Ser Ser Trp Lys Tyr Ser Thr Phe Ser Gly Tyr Leu Leu Tyr Gln Asp
 785 790 795 800
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<210> 997
 <211> 711
 <212> PRT
 <213> Homo sapiens

<400> 997
 Met Leu Ile Gln Ser Glu Lys Lys Thr Gln Leu Ser Lys Thr Glu Ser
 1 5 10 15
 Val Lys Glu Ser Glu Ser Leu Met Glu Phe Ala Gln Pro Glu Ile Gln
 20 25 30
 Pro Gln Glu Phe Leu Asn Arg Arg Tyr Met Thr Glu Val Asp Tyr Ser
 35 40 45
 Asn Lys Gln Gly Glu Glu Gln Pro Trp Glu Ala Asp Tyr Ala Arg Lys
 50 55 60
 Pro Asn Leu Pro Lys Arg Trp Asp Met Leu Thr Glu Pro Asp Gly Gln
 65 70 75 80
 Glu Lys Lys Gln Glu Ser Phe Lys Ser Trp Glu Ala Ser Gly Lys His
 85 90 95
 Gln Glu Val Ser Lys Pro Ala Val Ser Leu Glu Gln Arg Lys Gln Asp
 100 105 110
 Thr Ser Lys Leu Arg Ser Thr Leu Pro Glu Glu Gln Lys Lys Gln Glu
 115 120 125
 Ile Ser Lys Ser Lys Pro Ser Pro Ser Gln Trp Lys Gln Asp Thr Pro
 130 135 140
 Lys Ser Lys Ala Gly Tyr Val Gln Glu Glu Gln Lys Lys Gln Glu Thr
 145 150 155 160
 Pro Lys Leu Trp Pro Val Gln Leu Gln Lys Glu Gln Asp Pro Lys Lys
 165 170 175
 Gln Thr Pro Lys Ser Trp Thr Pro Ser Met Gln Ser Glu Gln Asn Thr
 180 185 190
 Thr Lys Ser Trp Thr Thr Pro Met Cys Glu Glu Gln Asp Ser Lys Gln
 195 200 205
 Pro Glu Thr Pro Lys Ser Trp Glu Asn Asn Val Glu Ser Gln Lys His
 210 215 220
 Ser Leu Thr Ser Gln Ser Gln Ile Ser Pro Lys Ser Trp Gly Val Ala
 225 230 235 240
 Thr Ala Ser Leu Ile Pro Asn Asp Gln Leu Leu Pro Arg Lys Leu Asn
 245 250 255
 Thr Glu Pro Lys Asp Val Pro Lys Pro Val His Gln Pro Val Gly Ser
 260 265 270
 Ser Ser Thr Leu Pro Lys Asp Pro Val Leu Arg Lys Glu Lys Leu Gln
 275 280 285
 Asp Leu Met Thr Gln Ile Gln Gly Thr Cys Asn Phe Met Gln Glu Ser
 290 295 300
 Val Leu Asp Phe Asp Lys Pro Ser Ser Ala Ile Pro Thr Ser Gln Pro
 305 310 315 320
 Pro Ser Ala Thr Pro Gly Ser Pro Val Ala Ser Lys Glu Gln Asn Leu
 325 330 335
 Ser Ser Gln Ser Asp Phe Leu Gln Glu Pro Leu Gln Val Phe Asn Val
 340 345 350
 Asn Ala Pro Leu Pro Pro Arg Lys Glu Gln Glu Ile Lys Glu Ser Pro
 355 360 365

Tyr Ser Pro Gly Tyr Asn Gln Ser Phe Thr Thr Ala Ser Thr Gln Thr
 370 375 380
 Pro Pro Gln Cys Gln Leu Pro Ser Ile His Val Glu Gln Thr Val His
 385 390 395 400
 Ser Gln Glu Thr Ala Ala Asn Tyr His Pro Asp Gly Thr Ile Gln Val
 405 410 415
 Ser Asn Gly Ser Leu Ala Phe Tyr Pro Ala Gln Thr Asn Val Phe Pro
 420 425 430
 Arg Pro Thr Gln Pro Phe Val Asn Ser Arg Gly Ser Val Arg Gly Cys
 435 440 445
 Thr Arg Gly Gly Arg Leu Ile Thr Asn Ser Tyr Arg Ser Pro Gly Gly
 450 455 460
 Tyr Lys Gly Phe Asp Thr Tyr Arg Gly Leu Pro Ser Ile Ser Asn Gly
 465 470 475 480
 Asn Tyr Ser Gln Leu Gln Phe Gln Ala Arg Glu Tyr Ser Gly Ala Pro
 485 490 495
 Tyr Ser Gln Arg Asp Asn Phe Gln Gln Cys Tyr Lys Arg Gly Gly Thr
 500 505 510
 Ser Gly Gly Pro Arg Ala Asn Ser Arg Ala Gly Trp Ser Asp Ser Ser
 515 520 525
 Gln Val Ser Ser Pro Glu Arg Asp Asn Glu Thr Phe Asn Ser Gly Asp
 530 535 540
 Ser Gly Gln Gly Asp Ser Arg Ser Met Thr Pro Val Asp Val Pro Val
 545 550 555 560
 Thr Asn Pro Ala Ala Thr Ile Leu Pro Val His Val Tyr Pro Leu Pro
 565 570 575
 Gln Gln Met Arg Val Ala Phe Ser Ala Ala Arg Thr Ser Asn Leu Ala
 580 585 590
 Pro Gly Thr Leu Asp Gln Pro Tyr Gly Val Asp Leu Leu Leu Asn Asn
 595 600 605
 Leu Gly Glu Thr Phe Asp Leu Gln Leu Gly Arg Phe Asn Cys Pro Val
 610 615 620
 Asn Gly Thr Tyr Val Phe Ile Phe His Met Leu Lys Leu Ala Val Asn
 625 630 635 640
 Val Pro Leu Tyr Val Asn Leu Met Lys Asn Glu Glu Val Leu Val Ser
 645 650 655
 Ala Tyr Ala Asn Asp Gly Ala Pro Asp His Glu Thr Ala Ser Asn His
 660 665 670
 Ala Ile Leu Gln Leu Phe Gln Gly Asp Gln Ile Trp Leu Arg Leu His
 675 680 685
 Arg Gly Ala Ile Tyr Gly Ser Ser Trp Lys Tyr Ser Thr Phe Ser Gly
 690 695 700
 Tyr Leu Leu Tyr Gln Asp *
 705 710

<210> 998
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 998
 Met Glu Ala Ser Trp Gly Ser Phe Asn Ala Glu Arg Gly Trp Tyr Val
 1 5 10 15
 Ser Val Gln Gln Pro Glu Glu Ala Glu Ala Glu Glu Leu Ser Pro Leu
 20 25 30
 Leu Ser Asn Glu Leu His Arg Gln Arg Ser Pro Gly Val Ser Phe Gly
 35 40 45
 Leu Ser Val Phe Asn Leu Met Asn Ala Ile Met Gly Ser Gly Ile Leu
 50 55 60
 Gly Leu Ala Tyr Val Met Ala Asn Thr Gly Val Phe Gly Phe Ser Phe
 65 70 75 80

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Leu Leu Leu Thr Val Ala Leu Leu Ala Ser Tyr Ser Val His Leu Leu
      85                      90                      95
Leu Ser Met Cys Ile Gln Thr Ala Val Thr Ser Tyr Glu Asp Leu Gly
      100                      105                      110
Leu Phe Ala Phe Gly Leu Pro Gly Lys Leu Val Val Ala Gly Thr Ile
      115                      120                      125
Ile Ile Gln Asn Ile Gly Ala Met Ser Ser Tyr Leu Leu Ile Ile Lys
      130                      135                      140
Thr Glu Leu Pro Ala Ala Ile Ala Glu Phe Leu Thr Gly Asp Tyr Ser
145                      150                      155                      160
Arg Tyr Trp Tyr Leu Asp Gly Gln Thr Leu Leu Ile Ile Ile Cys Val
      165                      170                      175
Gly Ile Val Phe Pro Leu Ala Leu Leu Pro Lys Ile Gly Phe Leu Gly
      180                      185                      190
Tyr Thr Ser Ser Leu Ser Phe Phe Phe Met Met Phe Phe Ala Leu Val
      195                      200                      205
Val Ile Ile Lys Lys Trp Ser Ile Pro Cys Pro Leu Thr Leu Asn Tyr
      210                      215                      220
Val Glu Lys Gly Phe Gln Ile Ser Asn Val Thr Asp Asp Cys Lys Pro
225                      230                      235                      240
Lys Leu Phe His Phe Ser Lys Glu Ser Ala Tyr Ala Leu Pro Thr Met
      245                      250                      255
Ala Phe Ser Phe Leu Cys His Thr Ser Ile Leu Pro Ile Tyr Cys Glu
      260                      265                      270
Leu Gln Ser Pro Ser Lys Lys Arg Met Gln Asn Val Thr Asn Thr Ala
      275                      280                      285
Ile Ala Leu Ser Phe Leu Ile Tyr Phe Ile Ser Ala Leu Phe Gly Tyr
      290                      295                      300
Leu Thr Phe Tyr Asp Lys Val Glu Ser Glu Leu Leu Lys Gly Tyr Ser
305                      310                      315                      320
Lys Tyr Leu Ser His Asp Val Val Val Met Thr Val Lys Leu Cys Ile
      325                      330                      335
Leu Phe Gly Val Leu Leu Thr Val Pro Leu Ile His Phe Pro Ala Arg
      340                      345                      350
Lys Ala Val Thr Met Met Phe Phe Ser Asn Phe Pro Phe Ser Trp Ile
      355                      360                      365
Arg His Phe Leu Ile Thr Leu Ala Leu Asn Ile Ile Ile Val Leu Leu
      370                      375                      380
Ala Ile Tyr Val Pro Asp Ile Arg Asn Val Phe Gly Val Val Gly Ala
385                      390                      395                      400
Ser Thr Ser Thr Cys Leu Ile Phe Ile Phe Pro Gly Leu Phe Tyr Leu
      405                      410                      415
Lys Leu Ser Arg Glu Asp Phe Leu Ser Trp Lys Lys Leu Gly Ala Phe
      420                      425                      430
Val Leu Leu Ile Phe Gly Ile Leu Val Gly Asn Phe Ser Leu Ala Leu
      435                      440                      445
Ile Ile Phe Asp Trp Ile Asn Lys *
      450                      455 456

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<210> 999

<211> 1002

<212> PRT

<213> Homo sapiens

<400> 999

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Met Glu Ala Ala His Ala Lys Thr Thr Glu Glu Cys Leu Ala Tyr Phe
  1                      5                      10                      15
Gly Val Ser Glu Thr Thr Gly Leu Thr Pro Asp Gln Val Lys Arg Asn
      20                      25                      30
Leu Glu Lys Tyr Gly Leu Asn Glu Leu Pro Ala Glu Glu Gly Lys Thr
      35                      40                      45

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Leu	Trp	Glu	Leu	Val	Ile	Glu	Gln	Phe	Glu	Asp	Leu	Leu	Val	Arg	Ile
50						55					60				
Leu	Leu	Leu	Ala	Ala	Cys	Ile	Ser	Phe	Val	Leu	Ala	Trp	Phe	Glu	Glu
65					70					75					80
Gly	Glu	Glu	Thr	Ile	Thr	Ala	Phe	Val	Glu	Pro	Phe	Val	Ile	Leu	Leu
				85					90					95	
Ile	Leu	Ile	Ala	Asn	Ala	Ile	Val	Gly	Val	Trp	Gln	Glu	Arg	Asn	Ala
			100					105					110		
Glu	Asn	Ala	Ile	Glu	Ala	Leu	Lys	Glu	Tyr	Glu	Pro	Glu	Met	Gly	Lys
		115					120					125			
Val	Tyr	Arg	Ala	Asp	Arg	Lys	Ser	Val	Gln	Arg	Ile	Lys	Ala	Arg	Asp
	130					135					140				
Ile	Val	Pro	Gly	Asp	Ile	Val	Glu	Val	Ala	Val	Gly	Asp	Lys	Val	Pro
145					150					155					160
Ala	Asp	Ile	Arg	Ile	Leu	Ala	Ile	Lys	Ser	Thr	Thr	Leu	Arg	Val	Asp
				165				170						175	
Gln	Ser	Ile	Leu	Thr	Gly	Glu	Ser	Val	Ser	Val	Ile	Lys	His	Thr	Glu
			180					185					190		
Pro	Val	Pro	Asp	Pro	Arg	Ala	Val	Asn	Gln	Asp	Lys	Lys	Asn	Met	Leu
		195					200					205			
Phe	Ser	Gly	Thr	Asn	Ile	Ala	Ala	Gly	Lys	Ala	Leu	Gly	Ile	Val	Ala
	210					215					220				
Thr	Thr	Gly	Val	Gly	Thr	Glu	Ile	Gly	Lys	Ile	Arg	Asp	Gln	Met	Ala
225					230					235					240
Ala	Thr	Glu	Gln	Asp	Lys	Thr	Pro	Leu	Gln	Gln	Lys	Leu	Asp	Glu	Phe
				245					250					255	
Gly	Glu	Gln	Leu	Ser	Lys	Val	Ile	Ser	Leu	Ile	Cys	Val	Ala	Val	Trp
			260					265					270		
Leu	Ile	Asn	Ile	Gly	His	Phe	Asn	Asp	Pro	Val	His	Gly	Gly	Ser	Trp
		275					280					285			
Phe	Arg	Gly	Ala	Ile	Tyr	Tyr	Phe	Lys	Ile	Ala	Val	Ala	Leu	Ala	Val
	290					295					300				
Ala	Ala	Ile	Pro	Glu	Gly	Leu	Pro	Ala	Val	Ile	Thr	Thr	Cys	Leu	Ala
305					310					315					320
Leu	Gly	Thr	Arg	Arg	Met	Ala	Lys	Lys	Asn	Ala	Ile	Val	Arg	Ser	Leu
				325					330					335	
Pro	Ser	Val	Glu	Thr	Leu	Gly	Cys	Thr	Ser	Val	Ile	Cys	Ser	Asp	Lys
			340					345					350		
Thr	Gly	Thr	Leu	Thr	Thr	Asn	Gln	Met	Ser	Val	Cys	Lys	Met	Phe	Ile
		355					360					365			
Ile	Asp	Lys	Val	Asp	Gly	Asp	Ile	Cys	Leu	Leu	Asn	Glu	Phe	Ser	Ile
	370					375					380				
Thr	Gly	Ser	Thr	Tyr	Ala	Pro	Glu	Gly	Glu	Val	Leu	Lys	Asn	Asp	Lys
385					390					395					400
Pro	Val	Arg	Pro	Gly	Gln	Tyr	Asp	Gly	Leu	Val	Glu	Leu	Ala	Thr	Ile
				405					410					415	
Cys	Ala	Leu	Cys	Asn	Asp	Ser	Ser	Leu	Asp	Phe	Asn	Glu	Ala	Lys	Gly
			420					425					430		
Val	Tyr	Glu	Lys	Val	Gly	Glu	Ala	Thr	Glu	Thr	Ala	Leu	Thr	Thr	Leu
		435					440					445			
Val	Glu	Lys	Met	Asn	Val	Phe	Asn	Thr	Asp	Val	Arg	Ser	Leu	Ser	Lys
	450					455					460				
Val	Glu	Arg	Ala	Asn	Ala	Cys	Asn	Ser	Val	Ile	Arg	Gln	Leu	Met	Lys
465					470					475					480
Lys	Glu	Phe	Thr	Leu	Glu	Phe	Ser	Arg	Asp	Arg	Lys	Ser	Met	Ser	Val
				485					490					495	
Tyr	Cys	Ser	Pro	Ala	Lys	Ser	Ser	Arg	Ala	Ala	Val	Gly	Asn	Lys	Met
			500					505					510		
Phe	Val	Lys	Gly	Ala	Pro	Glu	Gly	Val	Ile	Asp	Arg	Cys	Asn	Tyr	Val
		515					520					525			
Arg	Val	Gly	Thr	Thr	Arg	Val	Pro	Leu	Thr	Gly	Pro	Val	Lys	Glu	Lys
	530					535					540				
Ile	Met	Ala	Val	Ile	Lys	Glu	Trp	Gly	Thr	Gly	Arg	Asp	Thr	Leu	Arg
545					550					555					560

Cys	Leu	Ala	Leu	Ala	Thr	Arg	Asp	Thr	Pro	Pro	Lys	Arg	Glu	Glu	Met			
				565					570					575				
Val	Leu	Asp	Asp	Ser	Ala	Arg	Phe	Leu	Glu	Tyr	Glu	Thr	Asp	Leu	Thr			
			580					585					590					
Phe	Val	Gly	Val	Val	Gly	Met	Leu	Asp	Pro	Pro	Arg	Lys	Glu	Val	Thr			
		595					600					605						
Gly	Ser	Ile	Gln	Leu	Cys	Arg	Asp	Ala	Gly	Ile	Arg	Val	Ile	Met	Ile			
	610					615					620							
Thr	Gly	Asp	Asn	Lys	Gly	Thr	Ala	Ile	Ala	Ile	Cys	Arg	Arg	Ile	Gly			
625					630				635					640				
Ile	Phe	Gly	Glu	Asn	Glu	Glu	Val	Ala	Asp	Arg	Ala	Tyr	Thr	Gly	Arg			
				645					650					655				
Glu	Phe	Asp	Asp	Leu	Pro	Leu	Ala	Glu	Gln	Arg	Glu	Ala	Cys	Arg	Arg			
			660					665					670					
Ala	Cys	Cys	Phe	Ala	Arg	Val	Glu	Pro	Ser	His	Lys	Ser	Lys	Ile	Val			
		675					680					685						
Glu	Tyr	Leu	Gln	Ser	Tyr	Asp	Glu	Ile	Thr	Ala	Met	Thr	Gly	Asp	Gly			
	690					695					700							
Val	Asn	Asp	Ala	Pro	Ala	Leu	Lys	Lys	Ala	Glu	Ile	Gly	Ile	Ala	Met			
705					710					715				720				
Gly	Ser	Gly	Thr	Ala	Val	Ala	Lys	Thr	Ala	Ser	Glu	Met	Val	Leu	Ala			
			725					730					735					
Asp	Asp	Asn	Phe	Ser	Thr	Ile	Val	Ala	Ala	Val	Glu	Glu	Gly	Arg	Ala			
		740						745					750					
Ile	Tyr	Asn	Asn	Met	Lys	Gln	Phe	Ile	Arg	Tyr	Leu	Ile	Ser	Ser	Asn			
	755					760						765						
Val	Gly	Glu	Val	Val	Cys	Ile	Phe	Leu	Thr	Ala	Ala	Leu	Gly	Leu	Pro			
	770				775					780								
Glu	Ala	Leu	Ile	Pro	Val	Gln	Leu	Leu	Trp	Val	Asn	Leu	Val	Thr	Asp			
785					790					795				800				
Gly	Leu	Pro	Ala	Thr	Ala	Leu	Gly	Phe	Asn	Pro	Pro	Asp	Leu	Asp	Ile			
			805					810					815					
Met	Asp	Arg	Pro	Pro	Arg	Ser	Pro	Lys	Glu	Pro	Leu	Ile	Ser	Gly	Trp			
		820						825					830					
Leu	Phe	Phe	Arg	Tyr	Met	Ala	Ile	Gly	Gly	Tyr	Val	Gly	Ala	Ala	Thr			
		835				840						845						
Val	Gly	Ala	Ala	Ala	Trp	Trp	Phe	Leu	Tyr	Ala	Glu	Asp	Gly	Pro	His			
	850				855					860								
Val	Asn	Tyr	Ser	Gln	Leu	Thr	His	Phe	Met	Gln	Cys	Thr	Glu	Asp	Asn			
865				870						875				880				
Thr	His	Phe	Glu	Gly	Ile	Asp	Cys	Glu	Val	Phe	Glu	Ala	Pro	Glu	Pro			
			885					890					895					
Met	Thr	Met	Ala	Leu	Ser	Val	Leu	Val	Thr	Ile	Glu	Met	Cys	Asn	Ala			
		900						905					910					
Leu	Asn	Ser	Leu	Ser	Glu	Asn	Gln	Ser	Leu	Leu	Arg	Met	Pro	Pro	Trp			
		915					920					925						
Val	Asn	Ile	Trp	Leu	Leu	Gly	Ser	Ile	Cys	Leu	Ser	Met	Ser	Leu	His			
	930				935					940								
Phe	Leu	Ile	Leu	Tyr	Val	Asp	Pro	Leu	Pro	Met	Ile	Phe	Lys	Leu	Arg			
945				950					955					960				
Ala	Leu	Asp	Leu	Thr	Gln	Trp	Leu	Met	Val	Leu	Lys	Ile	Ser	Leu	Pro			
			965					970					975					
Val	Ile	Gly	Leu	Asp	Glu	Ile	Leu	Lys	Phe	Val	Ala	Arg	Asn	Tyr	Leu			
		980					985						990					
Glu	Asp	Pro	Glu	Asp	Glu	Arg	Arg	Lys	*									
	995						1000	1001										

<210> 1000
 <211> 1053
 <212> PRT
 <213> Homo sapiens

<400> 1000

Met	Ile	Arg	Thr	Leu	Leu	Leu	Ser	Thr	Leu	Val	Ala	Gly	Ala	Leu	Ser
1				5					10					15	
Cys	Gly	Val	Ser	Thr	Tyr	Ala	Pro	Asp	Met	Ser	Arg	Met	Leu	Gly	Gly
			20					25					30		
Glu	Glu	Ala	Arg	Pro	Asn	Ser	Trp	Pro	Trp	Gln	Val	Ser	Leu	Gln	Tyr
		35					40					45			
Ser	Ser	Asn	Gly	Gln	Trp	Tyr	His	Thr	Cys	Gly	Gly	Ser	Leu	Ile	Ala
		50				55					60				
Asn	Ser	Trp	Val	Leu	Thr	Ala	Ala	His	Cys	Ile	Ser	Ser	Ser	Arg	Ile
65					70					75				80	
Tyr	Arg	Val	Met	Leu	Gly	Gln	His	Asn	Leu	Tyr	Val	Ala	Glu	Ser	Gly
				85					90					95	
Ser	Leu	Ala	Val	Ser	Val	Ser	Lys	Ile	Val	Val	His	Lys	Asp	Trp	Asn
			100					105					110		
Ser	Asn	Gln	Val	Ser	Lys	Gly	Asn	Asp	Ile	Ala	Leu	Leu	Lys	Leu	Ala
		115					120					125			
Asn	Pro	Val	Ser	Leu	Thr	Asp	Lys	Ile	Gln	Leu	Ala	Cys	Leu	Pro	Pro
		130				135					140				
Ala	Gly	Thr	Ile	Leu	Pro	Asn	Asn	Tyr	Pro	Cys	Tyr	Val	Thr	Gly	Trp
145					150					155				160	
Gly	Arg	Leu	Gln	Thr	Asn	Gly	Ala	Leu	Pro	Asp	Asp	Leu	Lys	Gln	Gly
				165					170					175	
Arg	Leu	Leu	Val	Val	Asp	Tyr	Ala	Thr	Cys	Ser	Ser	Ser	Gly	Trp	Trp
			180					185					190		
Gly	Ser	Thr	Val	Lys	Thr	Asn	Met	Ile	Cys	Ala	Gly	Gly	Asp	Gly	Val
		195				200						205			
Ile	Cys	Thr	Cys	Asn	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Asn	Cys	Gln	Ala
		210				215					220				
Ser	Asp	Gly	Arg	Trp	Glu	Val	His	Gly	Ile	Gly	Ser	Leu	Thr	Ser	Val
225					230					235				240	
Leu	Gly	Cys	Asn	Tyr	Tyr	Tyr	Lys	Pro	Ser	Ile	Phe	Thr	Arg	Val	Ser
			245					250						255	
Asn	Tyr	Asn	Asp	Trp	Ile	Asn	Ser	Leu	Trp	Lys	Gly	Arg	Glu	Met	Glu
			260					265					270		
Val	Arg	Lys	Leu	Ser	Ile	Ser	Trp	Gln	Phe	Leu	Ile	Val	Leu	Val	Leu
		275					280					285			
Ile	Leu	Gln	Ile	Leu	Ser	Ala	Leu	Asp	Phe	Asp	Pro	Tyr	Arg	Val	Leu
		290				295					300				
Gly	Val	Ser	Arg	Thr	Ala	Ser	Gln	Ala	Asp	Ile	Lys	Lys	Ala	Tyr	Lys
305					310					315				320	
Lys	Leu	Ala	Arg	Glu	Trp	His	Pro	Asp	Lys	Asn	Lys	Asp	Pro	Gly	Ala
				325					330					335	
Glu	Asp	Lys	Phe	Ile	Gln	Ile	Ser	Lys	Ala	Tyr	Glu	Ile	Leu	Ser	Asn
			340					345					350		
Glu	Glu	Lys	Arg	Ser	Asn	Tyr	Asp	Gln	Tyr	Gly	Asp	Ala	Gly	Glu	Asn
		355					360					365			
Gln	Gly	Tyr	Gln	Lys	Gln	Gln	Gln	Gln	Arg	Glu	Tyr	Arg	Phe	Arg	His
		370				375					380				
Phe	His	Glu	Asn	Phe	Tyr	Phe	Asp	Glu	Ser	Phe	Phe	His	Phe	Pro	Phe
385					390					395				400	
Asn	Ser	Glu	Arg	Arg	Asp	Ser	Ile	Asp	Glu	Lys	Tyr	Leu	Leu	His	Phe
			405						410					415	
Ser	His	Tyr	Val	Asn	Glu	Val	Val	Pro	Asp	Ser	Phe	Lys	Lys	Pro	Tyr
			420					425					430		
Leu	Ile	Lys	Ile	Thr	Ser	Asp	Trp	Cys	Phe	Ser	Cys	Ile	His	Ile	Glu
		435					440					445			
Pro	Val	Trp	Lys	Glu	Val	Ile	Gln	Glu	Leu	Glu	Glu	Leu	Gly	Val	Gly
		450				455						460			
Ile	Gly	Val	Val	His	Ala	Gly	Tyr	Glu	Arg	Arg	Leu	Ala	His	His	Leu
465					470					475				480	
Gly	Ala	His	Ser	Thr	Pro	Ser	Ile	Leu	Gly	Ile	Ile	Asn	Gly	Lys	Ile
				485					490					495	

Ser	Phe	Phe	His	Asn	Ala	Val	Val	Arg	Glu	Asn	Leu	Arg	Gln	Phe	Val
			500					505					510		
Glu	Ser	Leu	Leu	Pro	Gly	Asn	Leu	Val	Glu	Lys	Val	Thr	Asn	Lys	Asn
		515					520					525			
Tyr	Val	Arg	Phe	Leu	Ser	Gly	Trp	Gln	Gln	Glu	Asn	Lys	Pro	His	Val
	530					535					540				
Leu	Leu	Phe	Asp	Gln	Thr	Pro	Ile	Val	Pro	Leu	Leu	Tyr	Lys	Leu	Thr
545					550					555					560
Ala	Phe	Ala	Tyr	Lys	Asp	Tyr	Leu	Ser	Phe	Gly	Tyr	Val	Tyr	Val	Gly
				565					570					575	
Leu	Arg	Gly	Thr	Glu	Glu	Met	Thr	Arg	Arg	Tyr	Asn	Ile	Asn	Ile	Tyr
			580					585					590		
Ala	Pro	Thr	Leu	Leu	Val	Phe	Lys	Glu	His	Ile	Asn	Arg	Pro	Ala	Asp
		595					600					605			
Val	Ile	Gln	Ala	Arg	Gly	Met	Lys	Lys	Gln	Ile	Ile	Asp	Asp	Phe	Ile
	610					615					620				
Thr	Arg	Asn	Lys	Tyr	Leu	Leu	Ala	Ala	Arg	Leu	Thr	Ser	Gln	Lys	Leu
625					630					635					640
Phe	His	Glu	Leu	Cys	Pro	Val	Lys	Arg	Ser	His	Arg	Gln	Arg	Lys	Tyr
				645					650					655	
Cys	Val	Val	Leu	Leu	Thr	Ala	Glu	Thr	Thr	Lys	Leu	Ser	Lys	Pro	Phe
			660					665					670		
Glu	Ala	Phe	Leu	Ser	Phe	Ala	Leu	Ala	Asn	Thr	Gln	Asp	Thr	Val	Arg
		675					680					685			
Phe	Val	His	Val	Tyr	Ser	Asn	Arg	Gln	Gln	Glu	Phe	Ala	Asp	Thr	Leu
	690					695					700				
Leu	Pro	Asp	Ser	Glu	Ala	Phe	Gln	Gly	Lys	Ser	Ala	Val	Ser	Ile	Leu
705					710					715					720
Glu	Arg	Arg	Asn	Thr	Ala	Gly	Arg	Val	Val	Tyr	Lys	Thr	Leu	Glu	Asp
				725					730					735	
Pro	Trp	Ile	Gly	Ser	Glu	Ser	Asp	Lys	Phe	Ile	Leu	Leu	Gly	Tyr	Leu
			740					745					750		
Asp	Gln	Leu	Arg	Lys	Asp	Pro	Ala	Leu	Leu	Ser	Ser	Glu	Ala	Val	Leu
		755					760					765			
Pro	Asp	Leu	Thr	Asp	Glu	Leu	Ala	Pro	Val	Phe	Leu	Leu	Arg	Trp	Phe
	770					775					780				
Tyr	Ser	Ala	Ser	Asp	Tyr	Ile	Ser	Asp	Cys	Trp	Asp	Ser	Ile	Phe	His
785					790					795					800
Asn	Asn	Trp	Arg	Glu	Met	Met	Pro	Leu	Leu	Ser	Leu	Ile	Phe	Ser	Ala
				805					810					815	
Leu	Phe	Ile	Leu	Phe	Gly	Thr	Val	Ile	Val	Gln	Ala	Phe	Ser	Asp	Ser
			820					825					830		
Asn	Asp	Glu	Arg	Glu	Ser	Ser	Pro	Pro	Glu	Lys	Glu	Glu	Ala	Gln	Glu
		835					840					845			
Lys	Thr	Gly	Lys	Thr	Glu	Pro	Ser	Phe	Thr	Lys	Glu	Asn	Ser	Ser	Lys
	850					855					860				
Ile	Pro	Lys	Lys	Gly	Phe	Val	Glu	Val	Thr	Glu	Leu	Thr	Asp	Val	Thr
865					870					875					880
Tyr	Thr	Ser	Asn	Leu	Val	Arg	Leu	Arg	Pro	Gly	His	Met	Asn	Val	Val
				885					890					895	
Leu	Ile	Leu	Ser	Asn	Ser	Thr	Lys	Thr	Ser	Leu	Leu	Gln	Lys	Phe	Ala
			900					905					910		
Leu	Glu	Val	Tyr	Thr	Phe	Thr	Gly	Ser	Ser	Cys	Leu	His	Phe	Ser	Phe
		915					920					925			
Leu	Ser	Leu	Asp	Lys	His	Arg	Glu	Trp	Leu	Glu	Tyr	Leu	Leu	Glu	Phe
	930					935					940				
Ala	Gln	Asp	Ala	Ala	Pro	Ile	Pro	Asn	Gln	Tyr	Asp	Lys	His	Phe	Met
945					950					955					960
Glu	Arg	Asp	Tyr	Thr	Gly	Tyr	Val	Leu	Ala	Leu	Asn	Gly	His	Lys	Lys
				965					970					975	
Tyr	Phe	Cys	Leu	Phe	Lys	Pro	Gln	Lys	Thr	Val	Glu	Glu	Glu	Glu	Ala
			980					985					990		
Ile	Gly	Ser	Cys	Ser	Asp	Val	Asp	Ser	Ser	Leu	Tyr	Leu	Gly	Glu	Ser
		995				1000						1005			

Arg Gly Lys Pro Ser Cys Gly Leu Gly Ser Arg Pro Ile Lys Gly Lys
 1010 1015 1020
 Leu Ser Lys Leu Ser Leu Trp Met Glu Arg Leu Leu Glu Gly Ser Leu
 1025 1030 1035 1040
 Gln Arg Phe Tyr Ile Pro Ser Trp Pro Glu Leu Asp *
 1045 1050 1052

<210> 1001
 <211> 339
 <212> PRT
 <213> Homo sapiens

<400> 1001
 Met Trp Leu Lys Val Phe Thr Thr Phe Leu Ser Phe Ala Thr Gly Ala
 1 5 10 15
 Cys Ser Gly Leu Lys Val Thr Val Pro Ser His Thr Val His Gly Val
 20 25 30
 Arg Gly Gln Ala Leu Tyr Leu Pro Val His Tyr Gly Phe His Thr Pro
 35 40 45
 Ala Ser Asp Ile Gln Ile Ile Trp Leu Phe Glu Arg Pro His Thr Met
 50 55 60
 Pro Lys Tyr Leu Leu Gly Ser Val Asn Lys Ser Val Val Pro Asp Leu
 65 70 75 80
 Glu-Tyr Gln His Lys Phe Thr Met Met Pro Pro Asn Ala Ser Leu Leu
 85 90 95
 Ile Asn Pro Leu Gln Phe Pro Asp Glu Gly Asn Tyr Ile Val Lys Val
 100 105 110
 Asn Ile Gln Gly Asn Gly Thr Leu Ser Ala Ser Gln Lys Ile Gln Val
 115 120 125
 Thr Val Asp Asp Pro Val Thr Lys Pro Val Val Gln Ile His Pro Pro
 130 135 140
 Ser Gly Ala Val Glu Tyr Val Gly Asn Met Thr Leu Thr Cys His Val
 145 150 155 160
 Glu Gly Gly Thr Arg Leu Ala Tyr Gln Trp Leu Lys Asn Gly Arg Pro
 165 170 175
 Val His Thr Ser Ser Thr Tyr Ser Phe Ser Pro Gln Asn Asn Thr Leu
 180 185 190
 His Ile Ala Pro Val Thr Lys Glu Asp Ile Gly Asn Tyr Ser Cys Leu
 195 200 205
 Val Arg Asn Pro Val Ser Glu Met Glu Ser Asp Ile Ile Met Pro Ile
 210 215 220
 Ile Tyr Tyr Gly Pro Tyr Gly Leu Gln Val Asn Ser Asp Lys Gly Leu
 225 230 235 240
 Lys Val Gly Glu Val Phe Thr Val Asp Leu Gly Glu Ala Ile Leu Phe
 245 250 255
 Asp Cys Ser Ala Asp Ser His Pro Pro Asn Thr Tyr Ser Trp Ile Arg
 260 265 270
 Arg Thr Asp Asn Thr Thr Tyr Ile Ile Lys His Gly Pro Arg Leu Glu
 275 280 285
 Val Ala Ser Glu Lys Val Ala Gln Lys Thr Met Asp Tyr Val Cys Cys
 290 295 300
 Ala Tyr Asn Asn Ile Thr Gly Arg Gln Asp Glu Thr His Phe Thr Val
 305 310 315 320
 Ile Ile Thr Ser Val Gly Met Cys Asp Ile Gln Gly Arg Asp Pro Asn
 325 330 335
 Lys Thr *
 338

<210> 1002

<211> 266
 <212> PRT
 <213> Homo sapiens

<400> 1002
 Met Ser Glu Glu Val Thr Tyr Ala Asp Leu Gln Phe Gln Asn Ser Ser
 1 5 10 15
 Glu Met Glu Lys Ile Pro Glu Ile Gly Lys Phe Gly Glu Lys Ala Pro
 20 25 30
 Pro Ala Pro Ser His Val Trp Arg Pro Ala Ala Leu Phe Leu Thr Leu
 35 40 45
 Leu Cys Leu Leu Leu Leu Ile Gly Leu Gly Val Leu Ala Ser Met Phe
 50 55 60
 His Val Thr Leu Lys Ile Glu Met Lys Lys Met Asn Lys Leu Gln Asn
 65 70 75 80
 Ile Ser Glu Glu Leu Gln Arg Asn Ile Ser Leu Gln Leu Met Ser Asn
 85 90 95
 Met Asn Ile Ser Asn Lys Ile Arg Asn Leu Ser Thr Thr Leu Gln Thr
 100 105 110
 Ile Ala Thr Lys Leu Cys Arg Glu Leu Tyr Ser Lys Glu Gln Glu His
 115 120 125
 Lys Cys Lys Pro Cys Pro Arg Arg Trp Ile Trp His Lys Asp Ser Cys
 130 135 140
 Tyr Phe Leu Ser Asp Asp Val Gln Thr Trp Gln Glu Ser Lys Met Ala
 145 150 155 160
 Cys Ala Ala Gln Asn Ala Ser Leu Leu Lys Ile Asn Asn Lys Asn Ala
 165 170 175
 Leu Glu Phe Ile Lys Ser Gln Ser Arg Ser Tyr Asp Tyr Trp Leu Gly
 180 185 190
 Leu Ser Pro Glu Glu Asp Ser Thr Arg Gly Met Arg Val Asp Asn Ile
 195 200 205
 Ile Asn Ser Ser Ala Trp Val Ile Arg Asn Ala Pro Asp Leu Asn Asn
 210 215 220
 Met Tyr Cys Gly Tyr Ile Asn Arg Leu Tyr Val Gln Tyr Tyr His Cys
 225 230 235 240
 Thr Tyr Lys Gln Arg Met Ile Cys Glu Lys Met Ala Asn Pro Val Gln
 245 250 255
 Leu Gly Ser Thr Tyr Phe Arg Glu Ala *
 260 265

<210> 1003
 <211> 254
 <212> PRT
 <213> Homo sapiens

<400> 1003
 Met Tyr Gln Val Pro Leu Pro Leu Asp Arg Asp Gly Thr Leu Val Arg
 1 5 10 15
 Leu Arg Phe Thr Met Val Ala Leu Val Thr Val Cys Cys Pro Leu Val
 20 25 30
 Ala Phe Leu Phe Cys Ile Leu Trp Ser Leu Leu Phe His Phe Lys Glu
 35 40 45
 Thr Thr Ala Thr His Cys Gly Val Pro Asn Tyr Leu Pro Ser Val Ser
 50 55 60
 Ser Ala Ile Gly Gly Glu Val Pro Gln Arg Tyr Val Trp Arg Phe Cys
 65 70 75 80
 Ile Gly Leu His Ser Ala Pro Arg Phe Leu Val Ala Phe Ala Tyr Trp
 85 90 95
 Asn His Tyr Leu Ser Cys Thr Ser Pro Cys Ser Cys Tyr Arg Pro Leu
 100 105 110

Cys	Arg	Leu	Asn	Phe	Gly	Leu	Asn	Val	Val	Glu	Asn	Leu	Ala	Leu	Leu
		115					120					125			
Val	Leu	Thr	Tyr	Val	Ser	Ser	Ser	Glu	Asp	Phe	Thr	Ile	His	Glu	Asn
		130				135						140			
Ala	Phe	Ile	Val	Phe	Ile	Ala	Ser	Ser	Leu	Gly	His	Met	Leu	Leu	Thr
145					150					155					160
Cys	Ile	Leu	Trp	Arg	Leu	Thr	Lys	Lys	His	Thr	Val	Ser	Gln	Glu	Asp
				165					170					175	
Arg	Lys	Ser	Tyr	Ser	Trp	Lys	Gln	Arg	Leu	Phe	Ile	Ile	Asn	Phe	Ile
			180					185					190		
Ser	Phe	Phe	Ser	Ala	Leu	Ala	Val	Tyr	Phe	Arg	His	Asn	Met	Tyr	Cys
		195					200					205			
Glu	Ala	Gly	Val	Tyr	Thr	Ile	Phe	Ala	Ile	Leu	Glu	Tyr	Thr	Val	Val
		210				215					220				
Leu	Thr	Asn	Met	Ala	Phe	His	Met	Thr	Ala	Trp	Trp	Asp	Phe	Gly	Asn
225					230					235					240
Lys	Glu	Leu	Leu	Ile	Thr	Ser	Gln	Pro	Glu	Glu	Lys	Arg	Phe		
				245					250				254		

<210> 1004
 <211> 468
 <212> PRT
 <213> Homo sapiens

<400> 1004

Met	Arg	Pro	Gln	Glu	Leu	Pro	Arg	Leu	Ala	Phe	Pro	Leu	Leu	Leu	Leu
1				5					10					15	
Leu	Leu	Leu	Leu	Leu	Pro	Pro	Pro	Pro	Cys	Pro	Ala	His	Ser	Ala	Thr
			20					25					30		
Arg	Phe	Asp	Pro	Thr	Trp	Glu	Ser	Leu	Asp	Ala	Arg	Gln	Leu	Pro	Ala
		35				40						45			
Trp	Phe	Asp	Gln	Ala	Lys	Phe	Gly	Ile	Phe	Ile	His	Trp	Gly	Val	Phe
	50					55					60				
Ser	Val	Pro	Ser	Phe	Gly	Ser	Glu	Trp	Phe	Trp	Trp	Tyr	Trp	Gln	Lys
65				70					75						80
Glu	Lys	Ile	Pro	Lys	Tyr	Val	Glu	Phe	Met	Lys	Asp	Asn	Tyr	Pro	Pro
				85					90					95	
Ser	Phe	Lys	Tyr	Glu	Asp	Phe	Gly	Pro	Leu	Phe	Thr	Ala	Lys	Phe	Phe
			100				105					110			
Asn	Ala	Asn	Gln	Trp	Ala	Asp	Ile	Phe	Gln	Ala	Ser	Gly	Ala	Lys	Tyr
		115				120						125			
Ile	Val	Leu	Thr	Ser	Lys	His	His	Glu	Gly	Phe	Thr	Leu	Trp	Gly	Ser
	130					135						140			
Glu	Tyr	Ser	Trp	Asn	Trp	Asn	Ala	Ile	Asp	Glu	Gly	Pro	Lys	Arg	Asp
145					150					155					160
Ile	Val	Lys	Glu	Leu	Glu	Val	Ala	Ile	Arg	Asn	Arg	Thr	Asp	Leu	Arg
				165					170					175	
Phe	Gly	Leu	Tyr	Tyr	Ser	Leu	Phe	Glu	Trp	Phe	His	Pro	Leu	Phe	Leu
			180					185					190		
Glu	Asp	Glu	Ser	Ser	Ser	Phe	His	Lys	Arg	Gln	Phe	Pro	Val	Ser	Lys
		195				200						205			
Thr	Leu	Pro	Glu	Leu	Tyr	Glu	Leu	Val	Asn	Asn	Tyr	Gln	Pro	Glu	Val
	210					215						220			
Leu	Trp	Ser	Asp	Gly	Asp	Gly	Gly	Glu	Pro	Asp	Gln	Tyr	Trp	Asn	Ser
225					230					235					240
Thr	Gly	Phe	Leu	Ala	Trp	Leu	Tyr	Asn	Glu	Ser	Pro	Val	Arg	Gly	Thr
				245					250					255	
Val	Val	Thr	Asn	Asp	Arg	Trp	Gly	Ala	Gly	Ser	Ile	Cys	Lys	His	Gly
			260					265					270		
Gly	Phe	Tyr	Thr	Cys	Ser	Asp	Arg	Tyr	Asn	Pro	Gly	His	Leu	Leu	Pro
		275					280					285			

His	Lys	Trp	Glu	Asn	Cys	Met	Thr	Ile	Asp	Lys	Leu	Ser	Trp	Gly	Tyr
290						295					300				
Arg	Arg	Glu	Ala	Gly	Ile	Ser	Asp	Tyr	Leu	Thr	Ile	Glu	Glu	Leu	Val
305					310					315					320
Lys	Gln	Leu	Val	Glu	Thr	Val	Ser	Cys	Gly	Gly	Asn	Leu	Leu	Met	Asn
				325					330					335	
Ile	Gly	Pro	Thr	Leu	Asp	Gly	Thr	Ile	Ser	Val	Val	Phe	Glu	Glu	Arg
			340					345					350		
Leu	Arg	Gln	Met	Gly	Ser	Trp	Leu	Lys	Val	Asn	Gly	Glu	Ala	Ile	Tyr
		355					360					365			
Glu	Thr	His	Thr	Trp	Arg	Ser	Gln	Asn	Asp	Thr	Val	Thr	Pro	Asp	Val
	370					375					380				
Trp	Tyr	Thr	Ser	Lys	Pro	Lys	Glu	Lys	Leu	Val	Tyr	Ala	Ile	Phe	Leu
385					390					395					400
Lys	Trp	Pro	Thr	Ser	Gly	Gln	Leu	Phe	Leu	Gly	His	Pro	Lys	Ala	Ile
				405					410					415	
Leu	Gly	Ala	Thr	Glu	Val	Lys	Leu	Leu	Gly	His	Gly	Gln	Pro	Leu	Asn
			420					425					430		
Trp	Ile	Ser	Leu	Glu	Gln	Asn	Gly	Ile	Met	Val	Glu	Leu	Pro	Gln	Leu
		435					440					445			
Thr	Ile	His	Gln	Met	Pro	Cys	Lys	Trp	Gly	Trp	Ala	Leu	Ala	Leu	Thr
	450					455					460				
Asn	Val	Ile	*												
465		467													

<210> 1005

<211> 362

<212> PRT

<213> Homo sapiens

<400> 1005

Met	Glu	Thr	Gly	Ala	Ala	Glu	Leu	Tyr	Asp	Gln	Ala	Leu	Leu	Gly	Ile
1				5					10					15	
Leu	Gln	His	Val	Gly	Asn	Val	Gln	Asp	Phe	Leu	Arg	Val	Leu	Phe	Gly
			20					25					30		
Phe	Leu	Tyr	Arg	Lys	Thr	Asp	Phe	Tyr	Arg	Leu	Leu	Arg	His	Pro	Ser
		35					40					45			
Asp	Arg	Met	Gly	Phe	Pro	Pro	Gly	Ala	Ala	Gln	Ala	Leu	Val	Leu	Gln
	50					55				60					
Val	Phe	Lys	Thr	Phe	Asp	His	Met	Ala	Arg	Gln	Asp	Asp	Glu	Lys	Arg
	65				70					75					80
Arg	Gln	Glu	Leu	Glu	Glu	Lys	Ile	Arg	Arg	Lys	Glu	Glu	Glu	Glu	Ala
				85					90					95	
Lys	Thr	Val	Ser	Ala	Ala	Ala	Ala	Glu	Lys	Glu	Pro	Val	Pro	Val	Pro
			100					105					110		
Val	Gln	Glu	Ile	Glu	Ile	Asp	Ser	Thr	Thr	Glu	Leu	Asp	Gly	His	Gln
		115					120					125			
Glu	Val	Glu	Lys	Val	Gln	Pro	Pro	Gly	Pro	Val	Lys	Glu	Met	Ala	His
	130					135					140				
Gly	Ser	Gln	Glu	Ala	Glu	Ala	Pro	Gly	Ala	Val	Ala	Gly	Ala	Ala	Glu
	145				150					155					160
Val	Pro	Arg	Glu	Pro	Pro	Ile	Leu	Pro	Arg	Ile	Gln	Glu	Gln	Phe	Gln
				165					170					175	
Lys	Asn	Pro	Asp	Ser	Tyr	Asn	Gly	Ala	Val	Arg	Glu	Asn	Tyr	Thr	Trp
			180					185					190		
Ser	Gln	Asp	Tyr	Thr	Asp	Leu	Glu	Val	Arg	Val	Pro	Val	Pro	Lys	His
		195					200					205			
Val	Val	Lys	Gly	Lys	Gln	Val	Ser	Val	Ala	Leu	Ser	Ser	Ser	Ser	Ile
	210					215					220				
Arg	Val	Ala	Met	Leu	Glu	Glu	Asn	Gly	Glu	Arg	Val	Leu	Met	Glu	Gly
	225				230					235					240

Lys Leu Thr His Lys Ile Asn Thr Glu Ser Ser Leu Trp Ser Leu Glu
 245 250 255
 Pro Gly Lys Cys Val Leu Val Asn Leu Ser Lys Val Gly Glu Tyr Trp
 260 265 270
 Trp Asn Ala Ile Leu Glu Gly Glu Glu Pro Ile Asp Ile Asp Lys Ile
 275 280 285
 Asn Lys Glu Arg Ser Met Ala Thr Val Asp Glu Glu Glu Gln Ala Val
 290 295 300
 Leu Asp Arg Leu Thr Phe Asp Tyr His Gln Lys Leu Gln Gly Lys Pro
 305 310 315 320
 Gln Ser His Glu Leu Lys Val His Glu Met Leu Lys Lys Gly Trp Asp
 325 330 335
 Ala Glu Gly Ser Pro Phe Arg Gly Gln Arg Phe Asp Pro Ala Met Phe
 340 345 350
 Asn Ile Ser Pro Gly Ala Val Gln Phe *
 355 360 361

<210> 1006
 <211> 507
 <212> PRT
 <213> Homo sapiens

<400> 1006
 Met Asp Asp Tyr Met Val Leu Arg Met Ile Gly Glu Gly Ser Phe Gly
 1 5 10 15
 Arg Ala Leu Leu Val Gln His Glu Ser Ser Asn Gln Met Phe Ala Met
 20 25 30
 Lys Glu Ile Arg Leu Pro Lys Ser Phe Ser Asn Thr Gln Asn Ser Arg
 35 40 45
 Lys Glu Ala Val Leu Leu Ala Lys Met Lys His Pro Asn Ile Val Ala
 50 55 60
 Phe Lys Glu Ser Phe Glu Ala Glu Gly His Leu Tyr Ile Val Met Glu
 65 70 75 80
 Tyr Cys Asp Gly Gly Asp Leu Met Gln Lys Ile Lys Gln Gln Lys Gly
 85 90 95
 Lys Leu Phe Pro Glu Asp Met Ile Leu Asn Trp Phe Thr Gln Met Cys
 100 105 110
 Leu Gly Val Asn His Ile His Lys Lys Arg Val Leu His Arg Asp Ile
 115 120 125
 Lys Ser Lys Asn Ile Phe Leu Thr Gln Asn Gly Lys Val Lys Leu Gly
 130 135 140
 Asp Phe Gly Ser Ala Arg Leu Leu Ser Asn Pro Met Ala Phe Ala Cys
 145 150 155 160
 Thr Tyr Val Gly Thr Pro Tyr Tyr Val Pro Pro Glu Ile Trp Glu Asn
 165 170 175
 Leu Pro Tyr Asn Asn Lys Ser Asp Ile Trp Ser Leu Gly Cys Ile Leu
 180 185 190
 Tyr Glu Leu Cys Thr Leu Lys His Pro Phe Gln Ala Asn Ser Trp Lys
 195 200 205
 Asn Leu Ile Leu Lys Val Cys Gln Gly Cys Ile Ser Pro Leu Pro Ser
 210 215 220
 His Tyr Ser Tyr Glu Leu Gln Phe Leu Val Lys Gln Met Phe Lys Arg
 225 230 235 240
 Asn Pro Ser His Arg Pro Ser Ala Thr Thr Leu Leu Ser Arg Gly Ile
 245 250 255
 Val Ala Arg Leu Val Gln Lys Cys Leu Pro Pro Glu Ile Ile Met Glu
 260 265 270
 Tyr Gly Glu Glu Val Leu Glu Glu Ile Lys Asn Ser Lys His Asn Thr
 275 280 285
 Pro Arg Lys Lys Thr Asn Pro Ser Arg Ile Arg Ile Ala Leu Gly Asn
 290 295 300

Glu Ala Ser Thr Val Gln Glu Glu Glu Gln Asp Arg Lys Gly Ser His
 305 310 315 320
 Thr Asp Leu Glu Ser Ile Asn Glu Asn Leu Val Glu Ser Ala Leu Arg
 325 330 335
 Arg Val Asn Arg Glu Glu Lys Gly Asn Lys Ser Val His Leu Arg Lys
 340 345 350
 Ala Ser Ser Pro Asn Leu His Arg Arg Gln Trp Glu Lys Asn Val Pro
 355 360 365
 Asn Thr Ala Leu Thr Ala Leu Glu Asn Ala Ser Ile Leu Thr Ser Ser
 370 375 380
 Leu Thr Ala Glu Asp Asp Arg Gly Gly Ser Val Ile Lys Tyr Ser Lys
 385 390 395 400
 Asn Thr Thr Arg Lys Gln Trp Leu Lys Glu Thr Pro Asp Thr Leu Leu
 405 410 415
 Asn Ile Leu Lys Asn Ala Asp Leu Ser Leu Ala Phe Gln Thr Tyr Thr
 420 425 430
 Ile Tyr Arg Pro Gly Ser Glu Gly Phe Leu Lys Gly Pro Leu Ser Glu
 435 440 445
 Glu Thr Glu Ala Ser Asp Ser Val Asp Gly Gly His Asp Ser Val Ile
 450 455 460
 Leu Asp Pro Glu Arg Leu Glu Pro Gly Leu Asp Glu Glu Asp Thr Asp
 465 470 475 480
 Phe Glu Glu Glu Asp Asp Asn Pro Asp Trp Val Ser Glu Leu Lys Lys
 485 490 495
 Arg Ala Gly Trp Gln Gly Leu Cys Asp Arg *
 500 505 506

<210> 1007

<211> 895

<212> PRT

<213> Homo sapiens

<400> 1007

Met Asn Pro Gly Phe Asp Leu Ser Arg Arg Asn Pro Gln Glu Asp Phe
 1 5 10 15
 Glu Leu Ile Gln Arg Ile Gly Ser Gly Thr Tyr Gly Asp Val Tyr Lys
 20 25 30
 Ala Arg Asn Val Asn Thr Gly Glu Leu Ala Ala Ile Lys Val Ile Lys
 35 40 45
 Leu Glu Pro Gly Glu Asp Phe Ala Val Val Gln Gln Glu Ile Ile Met
 50 55 60
 Met Lys Asp Cys Lys His Pro Asn Ile Val Ala Tyr Phe Gly Ser Tyr
 65 70 75 80
 Leu Arg Arg Asp Lys Leu Trp Ile Cys Met Glu Phe Cys Gly Gly Gly
 85 90 95
 Ser Leu Gln Asp Ile Tyr His Val Thr Gly Pro Leu Ser Glu Leu Gln
 100 105 110
 Ile Ala Tyr Val Ser Arg Glu Thr Leu Gln Gly Leu Tyr Tyr Leu His
 115 120 125
 Ser Lys Gly Lys Met His Arg Asp Ile Lys Gly Ala Asn Ile Leu Leu
 130 135 140
 Thr Asp Asn Gly His Val Lys Leu Ala Asp Phe Gly Val Ser Ala Gln
 145 150 155 160
 Ile Thr Ala Thr Ile Ala Lys Arg Lys Ser Phe Ile Gly Thr Pro Tyr
 165 170 175
 Trp Met Ala Pro Glu Val Ala Ala Val Glu Arg Lys Gly Gly Tyr Asn
 180 185 190
 Gln Leu Cys Asp Leu Trp Ala Val Gly Ile Thr Ala Ile Glu Leu Ala
 195 200 205
 Glu Leu Gln Pro Pro Met Phe Asp Leu His Pro Met Arg Ala Leu Phe
 210 215 220

Leu	Met	Thr	Lys	Ser	Asn	Phe	Gln	Pro	Pro	Lys	Leu	Lys	Asp	Lys	Met
225					230					235					240
Lys	Trp	Ser	Asn	Ser	Phe	His	His	Phe	Val	Lys	Met	Ala	Leu	Thr	Lys
			245						250					255	
Asn	Pro	Lys	Lys	Arg	Pro	Thr	Ala	Glu	Lys	Leu	Leu	Gln	His	Pro	Phe
			260					265					270		
Val	Thr	Gln	His	Leu	Thr	Arg	Ser	Leu	Ala	Ile	Glu	Leu	Leu	Asp	Lys
		275				280						285			
Val	Asn	Asn	Pro	Asp	His	Ser	Thr	Tyr	His	Asp	Phe	Asp	Asp	Asp	Asp
	290					295				300					
Pro	Glu	Pro	Leu	Val	Ala	Val	Pro	His	Arg	Ile	His	Ser	Thr	Ser	Arg
305					310					315					320
Asn	Val	Arg	Glu	Glu	Lys	Thr	Arg	Ser	Glu	Ile	Thr	Phe	Gly	Gln	Val
					325				330					335	
Lys	Phe	Asp	Pro	Pro	Leu	Arg	Lys	Glu	Thr	Glu	Pro	His	His	Glu	Leu
			340					345					350		
Pro	Asp	Ser	Asp	Gly	Phe	Leu	Asp	Ser	Ser	Glu	Glu	Ile	Tyr	Tyr	Thr
		355					360					365			
Ala	Arg	Ser	Asn	Leu	Asp	Leu	Gln	Leu	Glu	Tyr	Gly	Gln	Gly	His	Gln
	370					375					380				
Gly	Gly	Tyr	Phe	Leu	Gly	Ala	Asp	Lys	Ser	Leu	Leu	Lys	Ser	Val	Glu
385					390					395					400
Glu	Glu	Leu	His	Gln	Arg	Gly	His	Val	Ala	His	Leu	Glu	Asp	Asp	Glu
				405					410					415	
Gly	Asp	Asp	Asp	Glu	Ser	Lys	His	Ser	Thr	Leu	Lys	Ala	Lys	Ile	Pro
			420					425					430		
Pro	Pro	Leu	Pro	Pro	Lys	Pro	Lys	Ser	Ile	Phe	Ile	Pro	Gln	Glu	Met
		435					440					445			
His	Ser	Thr	Glu	Asp	Glu	Asn	Gln	Gly	Thr	Ile	Lys	Arg	Cys	Pro	Met
	450					455					460				
Ser	Gly	Ser	Pro	Ala	Lys	Pro	Ser	Gln	Val	Pro	Pro	Arg	Pro	Pro	Pro
465					470					475					480
Pro	Arg	Leu	Pro	Pro	His	Lys	Pro	Val	Ala	Leu	Gly	Asn	Gly	Met	Ser
				485					490					495	
Ser	Phe	Gln	Leu	Asn	Gly	Glu	Arg	Asp	Gly	Ser	Leu	Cys	Gln	Gln	Gln
			500					505					510		
Asn	Glu	His	Arg	Gly	Thr	Asn	Leu	Ser	Arg	Lys	Glu	Lys	Lys	Asp	Val
		515					520					525			
Pro	Lys	Pro	Ile	Ser	Asn	Gly	Leu	Pro	Pro	Thr	Pro	Lys	Val	His	Met
	530					535					540				
Gly	Ala	Cys	Phe	Ser	Lys	Val	Phe	Asn	Gly	Cys	Pro	Leu	Lys	Ile	His
545					550					555					560
Cys	Ala	Ser	Ser	Trp	Ile	Asn	Pro	Asp	Thr	Arg	Asp	Gln	Tyr	Leu	Ile
				565					570					575	
Phe	Gly	Ala	Glu	Glu	Gly	Ile	Tyr	Thr	Leu	Asn	Leu	Asn	Glu	Leu	His
			580					585					590		
Glu	Thr	Ser	Met	Glu	Gln	Leu	Phe	Pro	Arg	Arg	Cys	Thr	Trp	Leu	Tyr
		595					600					605			
Val	Met	Asn	Asn	Cys	Leu	Leu	Ser	Ile	Ser	Gly	Lys	Ala	Ser	Gln	Leu
	610					615					620				
Tyr	Ser	His	Asn	Leu	Pro	Gly	Leu	Phe	Asp	Tyr	Ala	Arg	Gln	Met	Gln
625					630					635					640
Lys	Leu	Pro	Val	Ala	Ile	Pro	Ala	His	Lys	Leu	Pro	Asp	Arg	Ile	Leu
				645					650					655	
Pro	Arg	Lys	Phe	Ser	Val	Ser	Ala	Lys	Ile	Pro	Glu	Thr	Lys	Trp	Cys
			660					665					670		
Gln	Lys	Cys	Cys	Val	Val	Arg	Asn	Pro	Tyr	Thr	Gly	His	Lys	Tyr	Leu
		675					680					685			
Cys	Gly	Ala	Leu	Gln	Thr	Ser	Ile	Val	Leu	Leu	Glu	Trp	Val	Glu	Pro
	690					695					700				
Met	Gln	Lys	Phe	Met	Leu	Ile	Lys	His	Ile	Asp	Phe	Pro	Ile	Pro	Cys
705					710					715					720
Pro	Leu	Arg	Met	Phe	Glu	Met	Leu	Val	Val	Pro	Glu	Gln	Glu	Tyr	Pro
				725					730					735	

Leu	Val	Cys	Val	Gly	Val	Ser	Arg	Gly	Arg	Asp	Phe	Asn	Gln	Val	Val
			740					745					750		
Arg	Phe	Glu	Thr	Val	Asn	Pro	Asn	Ser	Thr	Ser	Ser	Trp	Phe	Thr	Glu
		755					760					765			
Ser	Asp	Thr	Pro	Gln	Thr	Asn	Val	Thr	His	Val	Thr	Gln	Leu	Glu	Arg
		770				775					780				
Asp	Thr	Ile	Leu	Val	Cys	Leu	Asp	Cys	Cys	Ile	Lys	Ile	Val	Asn	Leu
785					790					795					800
Gln	Gly	Arg	Leu	Lys	Ser	Ser	Arg	Lys	Leu	Ser	Ser	Glu	Leu	Thr	Phe
				805				810						815	
Asp	Phe	Gln	Ile	Glu	Ser	Ile	Val	Cys	Leu	Gln	Asp	Ser	Val	Leu	Ala
			820					825					830		
Phe	Trp	Lys	His	Gly	Met	Gln	Gly	Arg	Ser	Phe	Arg	Ser	Asn	Glu	Val
		835					840					845			
Thr	Gln	Glu	Ile	Ser	Asp	Ser	Thr	Arg	Ile	Phe	Arg	Leu	Leu	Gly	Ser
		850				855					860				
Asp	Arg	Val	Val	Val	Leu	Glu	Ser	Arg	Pro	Thr	Asp	Asn	Pro	Thr	Ala
865					870					875					880
Asn	Ser	Asn	Leu	Tyr	Ile	Leu	Ala	Gly	His	Glu	Asn	Ser	Tyr	*	
			885					890					894		

<210> 1008

<211> 874

<212> PRT

<213> Homo sapiens

<400> 1008

Met	Asn	Pro	Gly	Phe	Asp	Leu	Ser	Arg	Arg	Asn	Pro	Gln	Glu	Asp	Phe
1				5					10					15	
Glu	Leu	Ile	Gln	Arg	Ile	Gly	Ser	Gly	Thr	Tyr	Gly	Asp	Val	Tyr	Lys
			20					25					30		
Ala	Arg	Asn	Val	Asn	Thr	Gly	Glu	Leu	Ala	Ala	Ile	Lys	Val	Ile	Lys
		35				40						45			
Leu	Glu	Pro	Gly	Glu	Asp	Phe	Ala	Val	Val	Gln	Gln	Glu	Ile	Ile	Met
50						55				60					
Met	Lys	Asp	Cys	Lys	His	Pro	Asn	Ile	Val	Ala	Tyr	Phe	Gly	Ser	Tyr
65					70					75					80
Leu	Arg	Arg	Asp	Lys	Leu	Trp	Ile	Cys	Met	Glu	Phe	Cys	Gly	Gly	Gly
				85				90						95	
Ser	Leu	Gln	Asp	Ile	Tyr	His	Val	Thr	Gly	Pro	Leu	Ser	Glu	Leu	Gln
			100					105					110		
Ile	Ala	Tyr	Val	Ser	Arg	Glu	Thr	Leu	Gln	Gly	Leu	Tyr	Tyr	Leu	His
		115				120						125			
Ser	Lys	Gly	Lys	Met	His	Arg	Asp	Ile	Lys	Gly	Ala	Asn	Ile	Leu	Leu
		130				135					140				
Thr	Asp	Asn	Gly	His	Val	Lys	Leu	Ala	Asp	Phe	Gly	Val	Ser	Ala	Gln
145					150					155					160
Ile	Thr	Ala	Thr	Ile	Ala	Lys	Arg	Lys	Ser	Phe	Ile	Gly	Thr	Pro	Tyr
				165				170						175	
Trp	Met	Ala	Pro	Glu	Val	Ala	Ala	Val	Glu	Arg	Lys	Gly	Gly	Tyr	Asn
			180					185						190	
Gln	Leu	Cys	Asp	Leu	Trp	Ala	Val	Gly	Ile	Thr	Ala	Ile	Glu	Leu	Ala
		195				200						205			
Glu	Leu	Gln	Pro	Pro	Met	Phe	Asp	Leu	His	Pro	Met	Arg	Ala	Leu	Phe
		210				215					220				
Leu	Met	Thr	Lys	Ser	Asn	Phe	Gln	Pro	Pro	Lys	Leu	Lys	Asp	Lys	Met
225					230					235					240
Lys	Trp	Ser	Asn	Ser	Phe	His	His	Phe	Val	Lys	Met	Ala	Leu	Thr	Lys
				245				250						255	
Asn	Pro	Lys	Lys	Arg	Pro	Thr	Ala	Glu	Lys	Leu	Leu	Gln	His	Pro	Phe
			260					265					270		

Val	Thr	Gln	His	Leu	Thr	Arg	Ser	Leu	Ala	Ile	Glu	Leu	Leu	Asp	Lys	275	280	285
Val	Asn	Asn	Pro	Asp	His	Ser	Thr	Tyr	His	Asp	Phe	Asp	Asp	Asp	Asp	290	295	300
Pro	Glu	Pro	Leu	Val	Ala	Val	Pro	His	Arg	Ile	His	Ser	Thr	Ser	Arg	305	310	315
Asn	Val	Arg	Glu	Glu	Lys	Thr	Arg	Ser	Glu	Ile	Thr	Phe	Gly	Gln	Val	325	330	335
Lys	Phe	Asp	Pro	Pro	Leu	Arg	Lys	Glu	Thr	Glu	Pro	His	His	Glu	Leu	340	345	350
Asp	Leu	Gln	Leu	Glu	Tyr	Gly	Gln	Gly	His	Gln	Gly	Gly	Tyr	Phe	Leu	355	360	365
Gly	Ala	Asn	Lys	Ser	Leu	Leu	Lys	Ser	Val	Glu	Glu	Glu	Leu	His	Gln	370	375	380
Arg	Gly	His	Val	Ala	His	Leu	Glu	Asp	Asp	Glu	Gly	Asp	Asp	Asp	Glu	385	390	395
Ser	Lys	His	Ser	Thr	Leu	Lys	Ala	Lys	Ile	Pro	Pro	Pro	Leu	Pro	Pro	405	410	415
Lys	Pro	Lys	Ser	Ile	Phe	Ile	Pro	Gln	Glu	Met	His	Ser	Thr	Glu	Asp	420	425	430
Glu	Asn	Gln	Gly	Thr	Ile	Lys	Arg	Cys	Pro	Met	Ser	Gly	Ser	Pro	Ala	435	440	445
Lys	Pro	Ser	Gln	Val	Pro	Pro	Arg	Pro	Pro	Pro	Pro	Arg	Leu	Pro	Pro	450	455	460
His	Lys	Pro	Val	Ala	Leu	Gly	Asn	Gly	Met	Ser	Ser	Phe	Gln	Leu	Asn	465	470	475
Gly	Glu	Arg	Asp	Gly	Ser	Leu	Cys	Gln	Gln	Gln	Asn	Glu	His	Arg	Gly	485	490	495
Thr	Asn	Leu	Ser	Arg	Lys	Glu	Lys	Lys	Asp	Val	Pro	Lys	Pro	Ile	Ser	500	505	510
Asn	Gly	Leu	Pro	Pro	Thr	Pro	Lys	Val	His	Met	Gly	Ala	Cys	Phe	Ser	515	520	525
Lys	Val	Phe	Asn	Gly	Cys	Pro	Leu	Lys	Ile	His	Cys	Ala	Ser	Ser	Trp	530	535	540
Ile	Asn	Pro	Asp	Thr	Arg	Asp	Gln	Tyr	Leu	Ile	Phe	Gly	Ala	Glu	Glu	545	550	555
Gly	Ile	Tyr	Thr	Leu	Asn	Leu	Asn	Glu	Leu	His	Glu	Thr	Ser	Met	Glu	565	570	575
Gln	Leu	Phe	Pro	Arg	Arg	Cys	Thr	Trp	Leu	Tyr	Val	Met	Asn	Asn	Cys	580	585	590
Leu	Leu	Ser	Ile	Ser	Gly	Lys	Ala	Ser	Gln	Leu	Tyr	Ser	His	Asn	Leu	595	600	605
Pro	Gly	Leu	Phe	Asp	Tyr	Ala	Arg	Gln	Met	Gln	Lys	Leu	Pro	Val	Ala	610	615	620
Ile	Pro	Ala	His	Lys	Leu	Pro	Asp	Arg	Ile	Leu	Pro	Arg	Lys	Phe	Ser	625	630	635
Val	Ser	Ala	Lys	Ile	Pro	Glu	Thr	Lys	Trp	Cys	Gln	Lys	Cys	Cys	Val	645	650	655
Val	Arg	Asn	Pro	Tyr	Thr	Gly	His	Lys	Tyr	Leu	Cys	Gly	Ala	Leu	Gln	660	665	670
Thr	Ser	Ile	Val	Leu	Leu	Glu	Trp	Val	Glu	Pro	Met	Gln	Lys	Phe	Met	675	680	685
Leu	Ile	Lys	His	Ile	Asp	Phe	Pro	Ile	Pro	Cys	Pro	Leu	Arg	Met	Phe	690	695	700
Glu	Met	Leu	Val	Val	Pro	Glu	Gln	Glu	Tyr	Pro	Leu	Val	Cys	Val	Gly	705	710	715
Val	Ser	Arg	Gly	Arg	Asp	Phe	Asn	Gln	Val	Val	Arg	Phe	Glu	Thr	Val	725	730	735
Asn	Pro	Asn	Ser	Thr	Ser	Ser	Trp	Phe	Thr	Glu	Ser	Asp	Thr	Pro	Gln	740	745	750
Thr	Asn	Val	Thr	His	Val	Thr	Gln	Leu	Glu	Arg	Asp	Thr	Ile	Leu	Val	755	760	765
Cys	Leu	Asp	Cys	Cys	Ile	Lys	Ile	Val	Asn	Leu	Gln	Gly	Arg	Leu	Lys	770	775	780

Ser	Ser	Arg	Lys	Leu	Ser	Ser	Glu	Leu	Thr	Phe	Asp	Phe	Gln	Ile	Glu
785					790					795					800
Ser	Ile	Val	Cys	Leu	Gln	Asp	Ser	Val	Leu	Ala	Phe	Trp	Lys	His	Gly
				805					810					815	
Met	Gln	Gly	Arg	Ser	Phe	Arg	Ser	Asn	Glu	Val	Thr	Gln	Glu	Ile	Ser
			820					825					830		
Asp	Ser	Thr	Arg	Ile	Phe	Arg	Leu	Leu	Gly	Ser	Asp	Arg	Val	Val	Val
		835					840					845			
Leu	Glu	Ser	Arg	Pro	Thr	Asp	Asn	Pro	Thr	Ala	Asn	Ser	Asn	Leu	Tyr
	850					855					860				
Ile	Leu	Ala	Gly	His	Glu	Asn	Ser	Tyr	*						
865					870			873							

<210> 1009
 <211> 441
 <212> PRT
 <213> Homo sapiens

<400> 1009

Met	Val	His	Ile	Lys	Lys	Gly	Glu	Leu	Thr	Gln	Glu	Glu	Lys	Glu	Leu
1				5					10					15	
Leu	Glu	Val	Ile	Gly	Lys	Gly	Thr	Val	Gln	Glu	Ala	Gly	Thr	Leu	Leu
			20					25					30		
Ser	Ser	Lys	Asn	Val	Arg	Val	Asn	Cys	Leu	Asp	Glu	Asn	Gly	Met	Thr
		35					40					45			
Pro	Leu	Met	His	Ala	Ala	Tyr	Lys	Gly	Lys	Leu	Asp	Met	Cys	Lys	Leu
	50					55					60				
Leu	Leu	Arg	His	Gly	Ala	Asp	Val	Asn	Cys	His	Gln	His	Glu	His	Gly
	65				70					75					80
Tyr	Thr	Ala	Leu	Met	Phe	Ala	Ala	Leu	Ser	Gly	Asn	Lys	Asp	Ile	Thr
			85						90					95	
Trp	Val	Met	Leu	Glu	Ala	Gly	Ala	Glu	Thr	Asp	Val	Val	Asn	Ser	Val
		100						105					110		
Gly	Arg	Thr	Ala	Ala	Gln	Met	Ala	Ala	Phe	Val	Gly	Gln	His	Asp	Cys
	115					120						125			
Val	Thr	Ile	Ile	Asn	Asn	Phe	Phe	Pro	Arg	Glu	Arg	Leu	Asp	Tyr	Tyr
	130					135					140				
Thr	Lys	Pro	Gln	Gly	Leu	Asp	Lys	Glu	Pro	Lys	Leu	Pro	Pro	Lys	Leu
	145				150					155					160
Ala	Gly	Pro	Leu	His	Lys	Ile	Ile	Thr	Thr	Thr	Asn	Leu	His	Pro	Val
			165					170						175	
Lys	Ile	Val	Met	Leu	Val	Asn	Glu	Asn	Pro	Leu	Leu	Thr	Glu	Glu	Ala
		180						185					190		
Ala	Leu	Asn	Lys	Cys	Tyr	Arg	Val	Met	Asp	Leu	Ile	Cys	Glu	Lys	Cys
	195						200					205			
Met	Lys	Gln	Arg	Asp	Met	Asn	Glu	Val	Leu	Ala	Met	Lys	Met	His	Tyr
	210					215					220				
Ile	Ser	Cys	Ile	Phe	Gln	Lys	Cys	Ile	Asn	Phe	Leu	Lys	Asp	Gly	Glu
	225				230					235					240
Asn	Lys	Leu	Asp	Thr	Leu	Ile	Lys	Ser	Leu	Leu	Lys	Gly	Arg	Ala	Ser
			245						250					255	
Asp	Gly	Phe	Pro	Val	Tyr	Gln	Glu	Lys	Ile	Ile	Arg	Glu	Ser	Ile	Arg
		260						265					270		
Lys	Phe	Pro	Tyr	Cys	Glu	Ala	Thr	Leu	Leu	Gln	Gln	Leu	Val	Arg	Ser
	275						280					285			
Ile	Ala	Pro	Val	Glu	Ile	Gly	Ser	Asp	Pro	Thr	Ala	Phe	Ser	Val	Leu
	290					295					300				
Thr	Gln	Ala	Ile	Thr	Gly	Gln	Val	Gly	Phe	Val	Asp	Val	Glu	Phe	Cys
	305				310					315					320
Thr	Thr	Cys	Gly	Glu	Lys	Gly	Ala	Ser	Lys	Arg	Cys	Ser	Val	Cys	Lys
			325						330					335	

Met	Val	Ile	Tyr	Cys	Asp	Gln	Thr	Cys	Gln	Lys	Thr	His	Trp	Phe	Thr
			340						345				350		
His	Lys	Lys	Ile	Cys	Lys	Asn	Leu	Lys	Asp	Ile	Tyr	Glu	Lys	Gln	Gln
		355					360					365			
Leu	Glu	Ala	Ala	Lys	Glu	Lys	Arg	Gln	Glu	Glu	Asn	His	Gly	Lys	Leu
	370					375					380				
Asp	Val	Asn	Ser	Asn	Cys	Val	Asn	Glu	Glu	Gln	Pro	Glu	Ala	Glu	Val
385					390					395					400
Gly	Ile	Ser	Gln	Lys	Asp	Ser	Asn	Pro	Glu	Asp	Ser	Gly	Glu	Gly	Lys
			405						410					415	
Lys	Glu	Ser	Leu	Glu	Ser	Glu	Ala	Glu	Leu	Glu	Gly	Leu	Gln	Asp	Ala
			420					425				430			
Pro	Ala	Gly	Pro	Gln	Val	Ser	Glu	Glu							
		435					440	441							

<210> 1010
 <211> 1757
 <212> PRT
 <213> Homo sapiens

<400> 1010

Met	Met	Tyr	Ile	Thr	Ile	Tyr	Ser	Met	Met	Lys	Ile	Pro	His	Gln	Thr
1				5					10					15	
Gln	Lys	Lys	Arg	Ser	Leu	Glu	Asp	Pro	Asn	Ser	Arg	Pro	Arg	Arg	Arg
			20					25				30			
Ser	Asp	Asp	Leu	Arg	Thr	Gly	Leu	Phe	Gln	Asp	Val	Gln	Asp	Ala	Glu
	35					40				45					
Ser	Leu	Lys	Leu	Pro	Gly	Val	Tyr	Glu	Val	Leu	Phe	Tyr	Asn	Glu	Thr
	50				55					60					
Glu	Asp	Cys	Pro	Gly	Met	Met	Leu	Trp	Arg	Tyr	Pro	Glu	Pro	Arg	Gly
65				70					75						80
Leu	Thr	Leu	Val	Arg	Ile	Thr	Pro	Val	Pro	Phe	Asn	Thr	Thr	Glu	Asp
			85					90						95	
Pro	Asp	Ile	Ser	Thr	Ala	Asp	Leu	Gly	Asp	Val	Leu	Gln	Asp	Pro	Cys
			100				105					110			
Ser	Leu	Glu	Tyr	Trp	Asp	Glu	Leu	Gln	Lys	Val	Phe	Val	Ala	Phe	Arg
	115					120					125				
Glu	Phe	Asn	Leu	Ser	Glu	Ser	Lys	Val	Cys	Glu	Leu	Gln	Leu	Pro	Asp
	130					135					140				
Ile	Asn	Leu	Val	Asn	Asp	Gln	Lys	Lys	Leu	Val	Ser	Ser	Asp	Leu	Trp
145				150					155						160
Arg	Ile	Val	Leu	Asn	Ser	Ser	Gln	Asn	Gly	Ala	Asp	Asp	Gln	Ser	Ser
			165					170						175	
Ala	Ser	Glu	Ser	Gly	Ser	Gln	Ser	Thr	Cys	Asp	Pro	Leu	Val	Thr	Pro
			180					185					190		
Thr	Ala	Leu	Ala	Ala	Cys	Thr	Arg	Val	Asp	Ser	Cys	Phe	Thr	Pro	Trp
	195					200					205				
Phe	Val	Pro	Ser	Leu	Cys	Val	Ser	Phe	Gln	Phe	Ala	His	Leu	Glu	Phe
	210					215					220				
His	Leu	Cys	His	His	Leu	Asp	Gln	Leu	Gly	Thr	Ala	Ala	Pro	Gln	Tyr
225					230					235					240
Leu	Gln	Pro	Phe	Val	Ser	Asp	Arg	Asn	Met	Pro	Ser	Glu	Leu	Glu	Tyr
			245						250					255	
Met	Ile	Val	Ser	Phe	Arg	Glu	Pro	His	Met	Tyr	Leu	Arg	Gln	Trp	Asn
			260					265					270		
Asn	Gly	Ser	Val	Cys	Gln	Glu	Ile	Gln	Phe	Leu	Ala	Gln	Ala	Asp	Cys
	275						280					285			
Lys	Leu	Glu	Cys	Arg	Asn	Val	Thr	Met	Gln	Ser	Val	Val	Lys	Pro	
	290				295					300					
Phe	Ser	Ile	Phe	Gly	Gln	Met	Ala	Val	Ser	Ser	Asp	Val	Val	Glu	Lys
305					310					315					320

Leu	Leu	Asp	Cys	Thr	Val	Ile	Val	Asp	Ser	Val	Phe	Val	Asn	Leu	Gly
				325					330					335	
Gln	His	Val	Val	His	Ser	Leu	Asn	Thr	Ala	Ile	Gln	Ala	Trp	Gln	Gln
			340					345					350		
Asn	Lys	Cys	Pro	Glu	Val	Glu	Glu	Leu	Val	Phe	Ser	His	Phe	Val	Ile
		355					360					365			
Cys	Asn	Asp	Thr	Gln	Glu	Thr	Leu	Arg	Phe	Gly	Gln	Val	Asp	Thr	Asp
		370				375					380				
Glu	Asn	Ile	Leu	Leu	Ala	Ser	Leu	His	Ser	His	Gln	Tyr	Ser	Trp	Arg
385					390					395					400
Ser	His	Lys	Ser	Pro	Gln	Leu	Leu	His	Ile	Cys	Ile	Glu	Gly	Trp	Gly
			405						410					415	
Asn	Trp	Arg	Trp	Ser	Glu	Pro	Phe	Ser	Val	Asp	His	Ala	Gly	Thr	Phe
			420					425						430	
Ile	Arg	Thr	Ile	Gln	Tyr	Arg	Gly	Arg	Thr	Ala	Ser	Leu	Ile	Ile	Lys
		435					440					445			
Val	Gln	Gln	Leu	Asn	Gly	Val	Gln	Lys	Gln	Ile	Ile	Ile	Cys	Gly	Arg
		450				455				460					
Gln	Ile	Ile	Cys	Ser	Tyr	Leu	Ser	Gln	Ser	Ile	Glu	Leu	Lys	Val	Val
465					470					475					480
Gln	His	Tyr	Ile	Gly	Gln	Asp	Gly	Gln	Ala	Val	Val	Arg	Glu	His	Phe
				485					490					495	
Asp	Cys	Leu	Thr	Ala	Lys	Gln	Lys	Leu	Pro	Ser	Tyr	Ile	Leu	Glu	Asn
			500					505					510		
Asn	Glu	Leu	Thr	Glu	Leu	Cys	Val	Lys	Ala	Lys	Gly	Asp	Glu	Asp	Trp
		515					520					525			
Ser	Arg	Asp	Val	Cys	Leu	Glu	Ser	Lys	Ala	Pro	Glu	Tyr	Ser	Ile	Val
		530				535					540				
Ile	Gln	Val	Pro	Ser	Ser	Asn	Ser	Ser	Ile	Ile	Tyr	Val	Trp	Cys	Thr
545					550					555					560
Val	Leu	Thr	Leu	Glu	Pro	Asn	Ser	Gln	Val	Gln	Gln	Arg	Met	Ile	Val
				565					570					575	
Phe	Ser	Pro	Leu	Phe	Ile	Met	Arg	Ser	His	Leu	Pro	Asp	Pro	Ile	Ile
			580					585					590		
Ile	His	Leu	Glu	Lys	Arg	Ser	Leu	Gly	Leu	Ser	Glu	Thr	Gln	Ile	Ile
		595					600					605			
Pro	Gly	Lys	Gly	Gln	Glu	Lys	Pro	Leu	Gln	Asn	Ile	Glu	Pro	Asp	Leu
		610				615					620				
Val	His	His	Leu	Thr	Phe	Gln	Ala	Arg	Glu	Glu	Tyr	Asp	Pro	Ser	Asp
625					630					635					640
Cys	Ala	Val	Pro	Ile	Ser	Thr	Ser	Leu	Ile	Lys	Gln	Ile	Ala	Thr	Lys
				645					650					655	
Val	His	Pro	Gly	Gly	Thr	Val	Asn	Gln	Ile	Leu	Asp	Glu	Phe	Tyr	Gly
			660					665					670		
Pro	Glu	Lys	Ser	Leu	Gln	Pro	Ile	Trp	Pro	Tyr	Asn	Lys	Lys	Asp	Ser
		675					680					685			
Asp	Arg	Asn	Glu	Gln	Leu	Ser	Gln	Trp	Asp	Ser	Pro	Met	Arg	Val	Lys
		690				695					700				
Leu	Ser	Ile	Trp	Lys	Pro	Tyr	Val	Arg	Thr	Leu	Leu	Ile	Glu	Leu	Leu
705					710					715					720
Pro	Trp	Ala	Leu	Leu	Ile	Asn	Glu	Ser	Lys	Trp	Asp	Leu	Trp	Leu	Phe
				725					730					735	
Glu	Gly	Glu	Lys	Ile	Val	Leu	Gln	Val	Pro	Ala	Gly	Lys	Ile	Ile	Ile
			740					745					750		
Pro	Pro	Asn	Phe	Gln	Glu	Ala	Phe	Gln	Ile	Gly	Ile	Tyr	Trp	Ala	Asn
		755					760					765			
Thr	Asn	Thr	Val	His	Lys	Ser	Val	Ala	Ile	Lys	Leu	Val	His	Asn	Leu
		770				775						780			
Thr	Ser	Pro	Lys	Trp	Lys	Asp	Gly	Gly	Asn	Gly	Glu	Val	Val	Thr	Leu
785					790					795					800
Asp	Glu	Glu	Ala	Phe	Val	Asp	Thr	Glu	Ile	Arg	Leu	Gly	Ala	Phe	Pro
				805					810					815	
Gly	His	Gln	Lys	Leu	Cys	Gln	Phe	Cys	Ile	Ser	Ser	Met	Val	Gln	Gln
			820					825						830	

2756

His Thr Pro Leu Ser Phe Ser Val Phe Glu Arg Gly Pro Ile Phe Thr
 1345 1350 1355 1360
 Thr Ala Arg Gln Leu Val His Ala Leu Ala Met His Tyr Ala Ala Gly
 1365 1370 1375
 Ala Leu Phe Arg Ala Gly Trp Val Val Gly Ser Leu Asp Ile Leu Gly
 1380 1385 1390
 Ser Pro Ala Ser Leu Val Arg Ser Ile Gly Asn Gly Val Ala Asp Phe
 1395 1400 1405
 Phe Arg Leu Pro Tyr Glu Gly Leu Thr Arg Gly Pro Gly Ala Phe Val
 1410 1415 1420
 Ser Gly Val Ser Arg Gly Thr Thr Ser Phe Val Lys His Ile Ser Lys
 1425 1430 1435 1440
 Gly Thr Leu Thr Ser Ile Thr Asn Leu Ala Thr Ser Leu Ala Arg Asn
 1445 1450 1455
 Met Asp Arg Leu Ser Leu Asp Glu Glu His Tyr Asn Arg Gln Glu Glu
 1460 1465 1470
 Trp Arg Arg Gln Leu Pro Glu Ser Leu Gly Glu Gly Leu Arg Gln Gly
 1475 1480 1485
 Leu Ser Arg Leu Gly Ile Ser Leu Leu Gly Ala Ile Ala Gly Ile Val
 1490 1495 1500
 Asp Gln Pro Met Gln Asn Phe Gln Lys Thr Ser Glu Ala Gln Ala Ser
 1505 1510 1515 1520
 Ala Gly His Lys Ala Lys Gly Val Ile Ser Gly Val Gly Lys Gly Ile
 1525 1530 1535
 Met Gly Val Phe Thr Lys Pro Ile Gly Gly Ala Ala Glu Leu Val Ser
 1540 1545 1550
 Gln Thr Gly Tyr Gly Ile Leu His Gly Ala Gly Leu Ser Gln Leu Pro
 1555 1560 1565
 Lys Gln Arg His Gln Pro Ser Asp Leu His Ala Asp Gln Ala Pro Asn
 1570 1575 1580
 Ser His Val Lys Tyr Val Trp Lys Met Leu Gln Ser Leu Gly Arg Pro
 1585 1590 1595 1600
 Glu Val His Met Ala Leu Asp Val Val Leu Val Arg Gly Ser Gly Gln
 1605 1610 1615
 Glu His Glu Gly Cys Leu Leu Leu Thr Ser Glu Val Leu Phe Val Val
 1620 1625 1630
 Ser Val Ser Glu Asp Thr Gln Gln Gln Ala Phe Pro Val Thr Glu Ile
 1635 1640 1645
 Asp Cys Ala Gln Asp Ser Lys Gln Asn Asn Leu Leu Thr Val Gln Leu
 1650 1655 1660
 Lys Gln Pro Arg Val Ala Cys Asp Val Glu Val Asp Gly Val Arg Glu
 1665 1670 1675 1680
 Arg Leu Ser Glu Gln Gln Tyr Asn Arg Leu Val Asp Tyr Ile Thr Lys
 1685 1690 1695
 Thr Ser Cys His Leu Ala Pro Ser Cys Ser Ser Met Gln Ile Pro Cys
 1700 1705 1710
 Pro Val Val Ala Ala Glu Pro Pro Pro Ser Thr Val Lys Thr Tyr His
 1715 1720 1725
 Tyr Leu Val Asp Pro His Phe Ala Gln Val Phe Leu Ser Lys Phe Thr
 1730 1735 1740
 Met Val Lys Asn Lys Ala Leu Arg Lys Gly Phe Pro *
 1745 1750 1755 1756

<210> 1011
 <211> 769
 <212> PRT
 <213> Homo sapiens

<400> 1011
 Met Ser Phe Ser Met Gly Gln Leu Leu Pro Thr Leu Gly His Leu Asp
 1 5 10 15

2758

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Pro Asn Lys Ala Ser Gly Leu Pro Pro Thr Glu Ser Asn Cys Glu Val
530                    535                    540
Pro Arg Pro Ser Thr Ala Pro Gln Arg Val Pro Val Ala Ser Pro Ser
545                    550                    555                    560
Ala His Asn Ile Ser Ser Ser Gly Gly Ala Pro Asp Arg Thr Asn Phe
                    565                    570                    575
Pro Arg Gly Val Ser Ser Arg Ser Thr Phe His Ala Gly Gln Leu Arg
                    580                    585                    590
Gln Val Arg Asp Gln Gln Asn Leu Pro Tyr Gly Val Thr Pro Ala Ser
                    595                    600                    605
Pro Ser Gly His Ser Gln Gly Arg Arg Gly Ala Ser Gly Ser Ile Phe
610                    615                    620
Ser Lys Phe Thr Ser Lys Phe Val Arg Arg Asn Leu Asn Glu Pro Glu
625                    630                    635                    640
Ser Lys Asp Arg Val Glu Thr Leu Arg Pro His Val Val Gly Ser Gly
                    645                    650                    655
Gly Asn Asp Lys Glu Lys Glu Glu Phe Arg Glu Ala Lys Pro Arg Ser
                    660                    665                    670
Leu Arg Phe Thr Trp Ser Met Lys Thr Thr Ser Ser Met Glu Pro Asn
                    675                    680                    685
Glu Met Met Arg Glu Ile Arg Lys Val Leu Asp Ala Asn Ser Cys Gln
690                    695                    700
Ser Glu Leu His Glu Lys Tyr Met Leu Leu Cys Met His Gly Thr Pro
705                    710                    715                    720
Gly His Glu Asp Phe Val Gln Trp Glu Met Glu Val Cys Lys Leu Pro
                    725                    730                    735
Arg Leu Ser Leu Asn Gly Val Arg Phe Lys Arg Ile Ser Gly Thr Ser
                    740                    745                    750
Met Ala Phe Lys Asn Ile Ala Ser Lys Ile Ala Asn Glu Leu Lys Leu
                    755                    760                    765                    768

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<210> 1012
<211> 1055
<212> PRT
<213> Homo sapiens

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<400> 1012
Met Glu Val Cys Ala Ala Phe Glu Ala Lys Glu Glu Thr Tyr Lys Ser
1                    5                    10                    15
Leu Met Gln Lys Gly Gln Gln Met Leu Ala Arg Cys Pro Lys Ser Ala
                    20                    25                    30
Glu Thr Asn Ile Asp Gln Asp Ile Asn Asn Leu Lys Glu Lys Trp Glu
                    35                    40                    45
Ser Val Glu Thr Lys Leu Asn Glu Arg Lys Thr Lys Leu Glu Glu Ala
50                    55                    60
Leu Asn Leu Ala Met Glu Phe His Asn Ser Leu Gln Asp Phe Ile Asn
65                    70                    75                    80
Trp Leu Thr Gln Ala Glu Gln Thr Leu Asn Val Ala Ser Arg Pro Ser
                    85                    90                    95
Leu Ile Leu Asp Thr Val Leu Phe Gln Ile Asp Glu His Lys Val Phe
                    100                    105                    110
Ala Asn Glu Val Asn Ser His Arg Glu Gln Ile Ile Glu Leu Asp Lys
                    115                    120                    125
Thr Gly Thr His Leu Lys Tyr Phe Ser Gln Lys Gln Asp Val Val Leu
130                    135                    140
Ile Lys Asn Leu Leu Ile Ser Val Gln Ser Arg Trp Glu Lys Val Val
145                    150                    155                    160
Gln Arg Leu Val Glu Arg Gly Arg Ser Leu Asp Asp Ala Arg Lys Arg
                    165                    170                    175

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Ala	Lys	Gln	Phe	His	Glu	Ala	Trp	Ser	Lys	Leu	Met	Glu	Trp	Leu	Glu	180	185	190
Glu	Ser	Glu	Lys	Ser	Leu	Asp	Ser	Glu	Leu	Glu	Ile	Ala	Asn	Asp	Pro	195	200	205
Asp	Lys	Ile	Lys	Thr	Gln	Leu	Ala	Gln	His	Lys	Glu	Phe	Gln	Lys	Ser	210	215	220
Leu	Gly	Ala	Lys	His	Ser	Val	Tyr	Asp	Thr	Thr	Asn	Arg	Thr	Gly	Arg	225	230	235
Ser	Leu	Lys	Glu	Lys	Thr	Ser	Leu	Ala	Asp	Asp	Asn	Leu	Lys	Leu	Asp	245	250	255
Asp	Met	Leu	Ser	Glu	Leu	Arg	Asp	Lys	Trp	Asp	Thr	Ile	Cys	Gly	Lys	260	265	270
Ser	Val	Glu	Arg	Gln	Asn	Lys	Leu	Glu	Glu	Ala	Leu	Leu	Phe	Ser	Gly	275	280	285
Gln	Phe	Thr	Asp	Ala	Leu	Gln	Ala	Leu	Ile	Asp	Trp	Leu	Tyr	Arg	Val	290	295	300
Glu	Pro	Gln	Leu	Ala	Glu	Asp	Gln	Pro	Val	His	Gly	Asp	Ile	Asp	Leu	305	310	315
Val	Met	Asn	Leu	Ile	Asp	Asn	His	Lys	Ala	Phe	Gln	Lys	Glu	Leu	Gly	325	330	335
Lys	Arg	Thr	Ser	Ser	Val	Gln	Ala	Leu	Lys	Arg	Ser	Ala	Arg	Glu	Leu	340	345	350
Ile	Glu	Gly	Ser	Arg	Asp	Asp	Ser	Ser	Trp	Val	Lys	Val	Gln	Met	Gln	355	360	365
Glu	Leu	Ser	Thr	Arg	Trp	Glu	Thr	Val	Cys	Ala	Leu	Ser	Ile	Ser	Lys	370	375	380
Gln	Thr	Arg	Leu	Glu	Ala	Ala	Leu	Arg	Gln	Ala	Glu	Glu	Phe	His	Ser	385	390	395
Val	Val	His	Ala	Leu	Leu	Glu	Trp	Leu	Ala	Glu	Ala	Glu	Gln	Thr	Leu	405	410	415
Arg	Phe	His	Gly	Val	Leu	Pro	Asp	Asp	Glu	Asp	Ala	Leu	Arg	Thr	Leu	420	425	430
Ile	Asp	Gln	His	Lys	Glu	Phe	Met	Lys	Lys	Leu	Glu	Glu	Lys	Arg	Ala	435	440	445
Glu	Leu	Asn	Lys	Ala	Thr	Thr	Met	Gly	Asp	Thr	Val	Leu	Ala	Ile	Cys	450	455	460
His	Pro	Asp	Ser	Ile	Thr	Thr	Ile	Lys	His	Trp	Ile	Thr	Ile	Ile	Arg	465	470	475
Ala	Arg	Phe	Glu	Glu	Val	Leu	Ala	Trp	Ala	Lys	Gln	His	Gln	Gln	Arg	485	490	495
Leu	Ala	Ser	Ala	Leu	Ala	Gly	Leu	Ile	Ala	Lys	Gln	Glu	Leu	Leu	Glu	500	505	510
Ala	Leu	Leu	Ala	Trp	Leu	Gln	Trp	Ala	Glu	Thr	Thr	Leu	Thr	Asp	Lys	515	520	525
Asp	Lys	Glu	Val	Ile	Pro	Gln	Glu	Ile	Glu	Glu	Val	Lys	Ala	Leu	Ile	530	535	540
Ala	Glu	His	Gln	Thr	Phe	Met	Glu	Glu	Met	Thr	Arg	Lys	Gln	Pro	Asp	545	550	555
Val	Asp	Lys	Val	Thr	Lys	Thr	Tyr	Lys	Arg	Ala	Ala	Asp	Pro	Ser		565	570	575
Ser	Leu	Gln	Ser	His	Ile	Pro	Val	Leu	Asp	Lys	Gly	Arg	Ala	Gly	Arg	580	585	590
Lys	Arg	Phe	Pro	Ala	Ser	Ser	Leu	Tyr	Pro	Ser	Gly	Ser	Gln	Thr	Gln	595	600	605
Ile	Glu	Thr	Lys	Asn	Pro	Arg	Val	Asn	Leu	Leu	Val	Ser	Lys	Trp	Gln	610	615	620
Gln	Val	Trp	Leu	Leu	Ala	Leu	Glu	Arg	Arg	Arg	Lys	Leu	Asn	Asp	Ala	625	630	635
Leu	Asp	Arg	Leu	Glu	Glu	Leu	Arg	Glu	Phe	Ala	Asn	Phe	Asp	Phe	Asp	645	650	655
Ile	Trp	Arg	Lys	Lys	Tyr	Met	Arg	Trp	Met	Asn	His	Lys	Lys	Ser	Arg	660	665	670
Val	Met	Asp	Phe	Phe	Arg	Arg	Ile	Asp	Lys	Asp	Gln	Asp	Gly	Lys	Ile	675	680	685

Thr	Arg	Gln	Glu	Phe	Ile	Asp	Gly	Ile	Leu	Ser	Ser	Lys	Phe	Pro	Thr
690						695						700			
Ser	Arg	Leu	Glu	Met	Ser	Ala	Val	Ala	Asp	Ile	Phe	Asp	Arg	Asp	Gly
705					710					715					720
Asp	Gly	Tyr	Ile	Asp	Tyr	Tyr	Glu	Phe	Val	Ala	Ala	Leu	His	Pro	Asn
				725					730					735	
Lys	Asp	Ala	Tyr	Lys	Pro	Ile	Thr	Asp	Ala	Asp	Lys	Ile	Glu	Asp	Glu
			740					745					750		
Val	Thr	Arg	Gln	Val	Ala	Lys	Cys	Lys	Cys	Ala	Lys	Arg	Phe	Gln	Val
		755					760					765			
Glu	Gln	Ile	Gly	Asp	Asn	Lys	Tyr	Arg	Phe	Phe	Leu	Gly	Asn	Gln	Phe
		770				775					780				
Gly	Asp	Ser	Gln	Gln	Leu	Arg	Leu	Val	Arg	Ile	Leu	Arg	Ser	Thr	Val
785					790					795					800
Met	Val	Arg	Val	Gly	Gly	Gly	Trp	Met	Ala	Leu	Asp	Glu	Phe	Leu	Val
				805					810					815	
Lys	Asn	Asp	Pro	Cys	Arg	Ala	Lys	Gly	Arg	Thr	Asn	Met	Glu	Leu	Arg
			820					825					830		
Glu	Lys	Phe	Ile	Leu	Ala	Asp	Gly	Ala	Ser	Gln	Gly	Met	Ala	Ala	Phe
		835					840					845			
Arg	Pro	Arg	Gly	Arg	Arg	Ser	Arg	Pro	Ser	Ser	Arg	Gly	Ala	Ser	Pro
		850				855					860				
Asn	Arg	Ser	Thr	Ser	Val	Ser	Ser	Gln	Ala	Ala	Gln	Ala	Ala	Ser	Pro
865					870					875					880
Gln	Val	Pro	Ala	Thr	Thr	Thr	Pro	Lys	Ile	Leu	His	Pro	Leu	Thr	Arg
				885					890					895	
Asn	Tyr	Gly	Lys	Pro	Trp	Leu	Thr	Asn	Ser	Lys	Met	Ser	Thr	Pro	Cys
			900					905					910		
Lys	Ala	Ala	Glu	Cys	Ser	Asp	Phe	Pro	Val	Pro	Ser	Ala	Glu	Gly	Thr
		915					920					925			
Pro	Ile	Gln	Gly	Ser	Lys	Leu	Arg	Leu	Pro	Gly	Tyr	Leu	Ser	Gly	Lys
		930				935					940				
Gly	Phe	His	Ser	Gly	Glu	Asp	Ser	Gly	Leu	Ile	Thr	Thr	Ala	Ala	Ala
945					950					955					960
Arg	Val	Arg	Thr	Gln	Phe	Ala	Asp	Ser	Lys	Lys	Thr	Pro	Ser	Arg	Pro
				965					970					975	
Gly	Ser	Arg	Ala	Gly	Ser	Lys	Ala	Gly	Ser	Arg	Ala	Ser	Ser	Arg	Arg
			980					985					990		
Gly	Ser	Asp	Ala	Ser	Asp	Phe	Asp	Ile	Ser	Glu	Ile	Gln	Ser	Val	Cys
		995				1000						1005			
Ser	Asp	Val	Glu	Thr	Val	Pro	Gln	Thr	His	Arg	Pro	Thr	Pro	Arg	Ala
		1010				1015					1020				
Gly	Ser	Arg	Pro	Ser	Thr	Ala	Lys	Pro	Ser	Lys	Ile	Pro	Thr	Pro	Gln
1025					1030					1035					1040
Arg	Lys	Ser	Pro	Ala	Ser	Lys	Leu	Asp	Lys	Ser	Ser	Lys	Arg	*	
			1045						1050				1054		

<210> 1013

<211> 1018

<212> PRT

<213> Homo sapiens

<400> 1013

Met	Glu	Val	Cys	Ala	Ala	Phe	Glu	Ala	Lys	Glu	Glu	Thr	Tyr	Lys	Ser
1				5					10					15	
Leu	Met	Gln	Lys	Gly	Gln	Gln	Met	Leu	Ala	Arg	Cys	Pro	Lys	Ser	Ala
			20					25					30		
Glu	Thr	Asn	Ile	Asp	Gln	Asp	Ile	Asn	Asn	Leu	Lys	Glu	Lys	Trp	Glu
		35					40					45			
Ser	Val	Glu	Thr	Lys	Leu	Asn	Glu	Arg	Lys	Thr	Lys	Leu	Glu	Glu	Ala
		50					55					60			

Leu	Asn	Leu	Ala	Met	Glu	Phe	His	Asn	Ser	Leu	Gln	Asp	Phe	Ile	Asn
65					70					75					80
Trp	Leu	Thr	Gln	Ala	Glu	Gln	Thr	Leu	Asn	Val	Ala	Ser	Arg	Pro	Ser
			85						90					95	
Leu	Ile	Leu	Asp	Thr	Val	Leu	Phe	Gln	Ile	Asp	Glu	His	Lys	Val	Phe
			100					105					110		
Ala	Asn	Glu	Val	Asn	Ser	His	Arg	Glu	Gln	Ile	Ile	Glu	Leu	Asp	Lys
		115					120					125			
Thr	Gly	Thr	His	Leu	Lys	Tyr	Phe	Ser	Gln	Lys	Gln	Asp	Val	Val	Leu
	130					135					140				
Ile	Lys	Asn	Leu	Leu	Ile	Ser	Val	Gln	Ser	Arg	Trp	Glu	Lys	Val	Val
145					150					155					160
Gln	Arg	Leu	Val	Glu	Arg	Gly	Arg	Ser	Leu	Asp	Asp	Ala	Arg	Lys	Arg
			165						170					175	
Ala	Lys	Gln	Phe	His	Glu	Ala	Trp	Ser	Lys	Leu	Met	Glu	Trp	Leu	Glu
			180					185					190		
Glu	Ser	Glu	Lys	Ser	Leu	Asp	Ser	Glu	Leu	Glu	Ile	Ala	Asn	Asp	Pro
		195					200					205			
Asp	Lys	Ile	Lys	Thr	Gln	Leu	Ala	Gln	His	Lys	Glu	Phe	Gln	Lys	Ser
	210					215					220				
Leu	Gly	Ala	Lys	His	Ser	Val	Tyr	Asp	Thr	Thr	Asn	Arg	Thr	Gly	Arg
225					230					235					240
Ser	Leu	Lys	Glu	Lys	Thr	Ser	Leu	Ala	Asp	Asp	Asn	Leu	Lys	Leu	Asp
			245						250					255	
Asp	Met	Leu	Ser	Glu	Leu	Arg	Asp	Lys	Trp	Asp	Thr	Ile	Cys	Gly	Lys
		260						265					270		
Ser	Val	Glu	Arg	Gln	Asn	Lys	Leu	Glu	Glu	Ala	Leu	Leu	Phe	Ser	Gly
		275					280						285		
Gln	Phe	Thr	Asp	Ala	Leu	Gln	Ala	Leu	Ile	Asp	Trp	Leu	Tyr	Arg	Val
	290					295					300				
Glu	Pro	Gln	Leu	Ala	Glu	Asp	Gln	Pro	Val	His	Gly	Asp	Ile	Asp	Leu
305					310					315					320
Val	Met	Asn	Leu	Ile	Asp	Asn	His	Lys	Ala	Phe	Gln	Lys	Glu	Leu	Gly
			325						330					335	
Lys	Arg	Thr	Ser	Ser	Val	Gln	Ala	Leu	Lys	Arg	Ser	Ala	Arg	Glu	Leu
		340						345					350		
Ile	Glu	Gly	Ser	Arg	Asp	Asp	Ser	Ser	Trp	Val	Lys	Val	Gln	Met	Gln
		355					360						365		
Glu	Leu	Ser	Thr	Arg	Trp	Glu	Thr	Val	Cys	Ala	Leu	Ser	Ile	Ser	Lys
	370					375					380				
Gln	Thr	Arg	Leu	Glu	Ala	Ala	Leu	Arg	Gln	Ala	Glu	Glu	Phe	His	Ser
385					390					395					400
Val	Val	His	Ala	Leu	Leu	Glu	Trp	Leu	Ala	Glu	Ala	Glu	Gln	Thr	Leu
			405						410					415	
Arg	Phe	His	Gly	Val	Leu	Pro	Asp	Asp	Glu	Asp	Ala	Leu	Arg	Thr	Leu
		420						425					430		
Ile	Asp	Gln	His	Lys	Glu	Phe	Met	Lys	Lys	Leu	Glu	Glu	Lys	Arg	Ala
		435					440						445		
Glu	Leu	Asn	Lys	Ala	Thr	Thr	Met	Gly	Asp	Thr	Val	Leu	Ala	Ile	Cys
	450					455					460				
His	Pro	Asp	Ser	Ile	Thr	Thr	Ile	Lys	His	Trp	Ile	Thr	Ile	Ile	Arg
465					470					475					480
Ala	Arg	Phe	Glu	Glu	Val	Leu	Ala	Trp	Ala	Lys	Gln	His	Gln	Gln	Arg
			485						490					495	
Leu	Ala	Ser	Ala	Leu	Ala	Gly	Leu	Ile	Ala	Lys	Gln	Glu	Leu	Leu	Glu
		500						505					510		
Ala	Leu	Leu	Ala	Trp	Leu	Gln	Trp	Ala	Glu	Thr	Thr	Leu	Thr	Asp	Lys
		515					520						525		
Asp	Lys	Glu	Val	Ile	Pro	Gln	Glu	Ile	Glu	Glu	Val	Lys	Ala	Leu	Ile
	530					535					540				
Ala	Glu	His	Gln	Thr	Phe	Met	Glu	Glu	Met	Thr	Arg	Lys	Gln	Pro	Asp
545					550					555					560
Val	Asp	Lys	Val	Thr	Lys	Thr	Tyr	Lys	Arg	Arg	Ala	Ala	Asp	Pro	Ser
			565						570					575	

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Ser Leu Gln Ser His Ile Pro Val Leu Asp Lys Gly Arg Ala Gly Arg
      580                      585                      590
Lys Arg Phe Pro Ala Ser Ser Leu Tyr Pro Ser Gly Ser Gln Thr Gln
      595                      600                      605
Ile Glu Thr Lys Asn Pro Arg Val Asn Leu Leu Val Ser Lys Trp Gln
      610                      615                      620
Gln Val Trp Leu Leu Ala Leu Glu Arg Arg Arg Lys Leu Asn Asp Ala
      625                      630                      635                      640
Leu Asp Arg Leu Glu Glu Leu Arg Glu Phe Ala Asn Phe Asp Phe Asp
      645                      650                      655
Ile Trp Arg Lys Lys Tyr Met Arg Trp Met Asn His Lys Lys Ser Arg
      660                      665                      670
Val Met Asp Phe Phe Arg Arg Ile Asp Lys Asp Gln Asp Gly Lys Ile
      675                      680                      685
Thr Arg Gln Glu Phe Ile Asp Gly Ile Leu Ser Ser Lys Phe Pro Thr
      690                      695                      700
Ser Arg Leu Glu Met Ser Ala Val Ala Asp Ile Phe Asp Arg Asp Gly
      705                      710                      715                      720
Asp Gly Tyr Ile Asp Tyr Tyr Glu Phe Val Ala Ala Leu His Pro Asn
      725                      730                      735
Lys Asp Ala Tyr Lys Pro Ile Thr Asp Ala Asp Lys Ile Glu Asp Glu
      740                      745                      750
Val Thr Arg Gln Val Ala Lys Cys Lys Cys Ala Lys Arg Phe Gln Val
      755                      760                      765
Glu Gln Ile Gly Asp Asn Lys Tyr Arg Phe Phe Leu Gly Asn Gln Phe
      770                      775                      780
Gly Asp Ser Gln Gln Leu Arg Leu Val Arg Ile Leu Arg Ser Thr Val
      785                      790                      795                      800
Met Val Arg Val Gly Gly Gly Trp Met Ala Leu Asp Glu Phe Leu Val
      805                      810                      815
Lys Asn Asp Pro Cys Arg Ala Lys Gly Arg Thr Asn Met Glu Leu Arg
      820                      825                      830
Glu Lys Phe Ile Leu Ala Asp Gly Ala Ser Gln Gly Met Ala Ala Phe
      835                      840                      845
Arg Pro Arg Gly Arg Arg Ser Arg Pro Ser Ser Arg Gly Ala Ser Pro
      850                      855                      860
Asn Arg Ser Thr Ser Val Ser Ser Gln Ala Ala Gln Ala Ala Ser Pro
      865                      870                      875                      880
Gln Val Pro Ala Thr Thr Thr Pro Lys Gly Thr Pro Ile Gln Gly Ser
      885                      890                      895
Lys Leu Arg Leu Pro Gly Tyr Leu Ser Gly Lys Gly Phe His Ser Gly
      900                      905                      910
Glu Asp Ser Gly Leu Ile Thr Thr Ala Ala Ala Arg Val Arg Thr Gln
      915                      920                      925
Phe Ala Asp Ser Lys Lys Thr Pro Ser Arg Pro Gly Ser Arg Ala Gly
      930                      935                      940
Ser Lys Ala Gly Ser Arg Ala Ser Ser Arg Arg Gly Ser Asp Ala Ser
      945                      950                      955                      960
Asp Phe Asp Ile Ser Glu Ile Gln Ser Val Cys Ser Asp Val Glu Thr
      965                      970                      975
Val Pro Gln Thr His Arg Pro Thr Pro Arg Ala Gly Ser Arg Pro Ser
      980                      985                      990
Thr Ala Lys Pro Ser Lys Ile Pro Thr Pro Gln Arg Lys Ser Pro Ala
      995                      1000                      1005
Ser Lys Leu Asp Lys Ser Ser Lys Arg *
      1010                      1015                      1017

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<210> 1014
<211> 684
<212> PRT
<213> Homo sapiens

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<400> 1014

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Met Ala Ala Gly Gly Ala Glu Gly Gly Ser Gly Pro Gly Ala Ala Met
 1          5          10          15
Gly Asp Cys Ala Glu Ile Lys Ser Gln Phe Arg Thr Arg Glu Gly Phe
          20          25          30
Tyr Lys Leu Leu Pro Gly Asp Gly Ala Ala Arg Arg Ser Gly Pro Ala
          35          40          45
Ser Ala Gln Thr Pro Val Pro Pro Gln Pro Pro Gln Pro Pro Pro Gly
          50          55          60
Pro Ala Ser Ala Ser Gly Pro Gly Ala Ala Gly Pro Ala Ser Ser Pro
          65          70          75          80
Pro Pro Ala Gly Pro Gly Pro Gly Pro Ala Leu Pro Ala Val Arg Leu
          85          90          95
Ser Leu Val Arg Leu Gly Glu Pro Asp Ser Ala Gly Ala Gly Glu Pro
          100          105          110
Pro Ala Thr Pro Ala Gly Leu Gly Ser Gly Gly Asp Arg Val Cys Phe
          115          120          125
Asn Leu Gly Arg Glu Leu Tyr Phe Tyr Pro Gly Cys Cys Arg Arg Gly
          130          135          140
Ser Gln Arg Trp His Thr Pro Leu Thr Pro Phe Leu Pro Pro Leu Lys
          145          150          155          160
Ser Ile Asp Leu Asn Lys Pro Ile Asp Lys Arg Ile Tyr Lys Gly Thr
          165          170          175
Gln Pro Thr Cys His Asp Phe Asn Gln Phe Thr Ala Ala Thr Glu Thr
          180          185          190
Ile Ser Leu Leu Val Gly Phe Ser Ala Gly Gln Val Gln Tyr Leu Asp
          195          200          205
Leu Ile Lys Lys Asp Thr Ser Lys Leu Phe Asn Glu Glu Arg Leu Ile
          210          215          220
Asp Lys Thr Lys Val Thr Tyr Leu Lys Trp Leu Pro Glu Ser Glu Ser
          225          230          235          240
Leu Phe Leu Ala Ser His Ala Ser Gly His Leu Tyr Leu Tyr Asn Val
          245          250          255
Ser His Pro Cys Ala Ser Ala Pro Pro Gln Tyr Ser Leu Leu Lys Gln
          260          265          270
Gly Glu Gly Phe Ser Val Tyr Ala Ala Lys Ser Lys Ala Pro Arg Asn
          275          280          285
Pro Leu Ala Lys Trp Ala Val Gly Glu Gly Pro Leu Asn Glu Phe Ala
          290          295          300
Phe Ser Pro Asp Gly Arg His Leu Ala Cys Val Ser Gln Asp Gly Cys
          305          310          315          320
Leu Arg Val Phe His Phe Asp Ser Met Leu Leu Arg Gly Leu Met Lys
          325          330          335
Ser Tyr Phe Gly Gly Leu Leu Cys Val Cys Trp Ser Pro Asp Gly Arg
          340          345          350
Tyr Val Val Thr Gly Gly Glu Asp Leu Val Thr Val Trp Ser Phe
          355          360          365
Thr Glu Gly Arg Val Val Ala Arg Gly His Gly His Lys Ser Trp Val
          370          375          380
Asn Ala Val Ala Phe Asp Pro Tyr Thr Thr Arg Ala Glu Glu Ala Ala
          385          390          395          400
Thr Ala Ala Gly Ala Asp Gly Glu Arg Ser Gly Glu Glu Glu Glu Glu
          405          410          415
Glu Pro Glu Ala Ala Gly Thr Gly Ser Ala Gly Gly Ala Pro Leu Ser
          420          425          430
Pro Leu Pro Lys Ala Gly Ser Ile Thr Tyr Arg Phe Gly Ser Ala Gly
          435          440          445
Gln Asp Thr Gln Phe Cys Leu Trp Asp Leu Thr Glu Asp Val Leu Tyr
          450          455          460
Pro His Pro Pro Leu Ala Arg Thr Arg Thr Leu Pro Gly Thr Pro Gly
          465          470          475          480
Thr Thr Pro Pro Ala Ala Ser Ser Ser Arg Gly Gly Glu Pro Gly Pro
          485          490          495

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Gly Pro Leu Pro Arg Ser Leu Ser Arg Ser Asn Ser Leu Pro His Pro
 500 505 510
 Ala Gly Gly Gly Lys Ala Gly Gly Pro Gly Val Ala Ala Glu Pro Gly
 515 520 525
 Thr Pro Phe Ser Ile Gly Arg Phe Ala Thr Leu Thr Leu Gln Glu Arg
 530 535 540
 Arg Asp Arg Gly Ala Glu Lys Glu His Lys Arg Tyr His Ser Leu Gly
 545 550 555 560
 Asn Ile Ser Arg Gly Gly Ser Gly Gly Ser Gly Ser Gly Glu Lys
 565 570 575
 Pro Ser Gly Pro Val Pro Arg Ser Arg Leu Asp Pro Ala Lys Val Leu
 580 585 590
 Gly Thr Ala Leu Cys Pro Arg Ile His Glu Val Pro Leu Leu Glu Pro
 595 600 605
 Leu Val Cys Lys Lys Ile Ala Gln Glu Arg Leu Thr Val Leu Leu Phe
 610 615 620
 Leu Glu Asp Cys Ile Ile Thr Ala Cys Gln Glu Gly Leu Ile Cys Thr
 625 630 635 640
 Trp Ala Arg Pro Gly Lys Ala Gly Ile Ser Ser Gln Pro Gly Asn Ser
 645 650 655
 Pro Ser Gly Thr Val Val Gly Ser His Gly Tyr Ser Ala Pro Pro Thr
 660 665 670
 Pro Cys Pro Gln Pro Ser Ser His Asn Pro Ser Leu
 675 680 684

<210> 1015
 <211> 1191
 <212> PRT
 <213> Homo sapiens

<400> 1015
 Met Pro Arg Gly Val Phe Gln Gln Leu Ser Asn Leu Val Leu Gln Glu
 1 5 10 15
 Leu Asn Ala Asn Leu Ser Asn Leu Thr Ser Ala Phe Glu Lys Ala Thr
 20 25 30
 Ala Glu Lys Ile Lys Cys Gln Gln Glu Ala Asp Ala Thr Asn Arg Val
 35 40 45
 Ile Leu Leu Ala Asn Arg Leu Val Gly Gly Leu Ala Ser Glu Asn Ile
 50 55 60
 Arg Trp Ala Glu Ser Val Glu Asn Phe Arg Ser Gln Gly Val Thr Leu
 65 70 75 80
 Cys Gly Asp Val Leu Leu Ile Ser Ala Phe Val Ser Tyr Val Gly Tyr
 85 90 95
 Phe Thr Lys Lys Tyr Arg Asn Glu Leu Met Glu Lys Phe Trp Ile Pro
 100 105 110
 Tyr Ile His Asn Leu Lys Val Pro Ile Pro Ile Thr Asn Gly Leu Asp
 115 120 125
 Pro Leu Ser Leu Leu Thr Asp Asp Ala Asp Val Ala Thr Trp Asn Asn
 130 135 140
 Gln Gly Leu Pro Ser Asp Arg Met Ser Thr Glu Asn Ala Thr Ile Leu
 145 150 155 160
 Gly Asn Thr Glu Arg Trp Pro Leu Ile Val Asp Ala Gln Leu Gln Gly
 165 170 175
 Ile Lys Trp Ile Lys Asn Lys Tyr Arg Ser Glu Leu Lys Ala Ile Arg
 180 185 190
 Leu Gly Gln Lys Ser Tyr Leu Asp Val Ile Glu Gln Ala Thr Ser Glu
 195 200 205
 Gly Asp Thr Leu Leu Ile Glu Asn Ile Gly Glu Thr Val Asp Pro Ala
 210 215 220
 Leu Asp Pro Leu Leu Gly Arg Asn Thr Ile Lys Lys Gly Lys Tyr Ile
 225 230 235 240

Lys	Ile	Gly	Asp	Lys	Glu	Val	Gly	Val	Pro	Pro	Gln	Val	Pro	Pro	Asp
				245					250					255	
Pro	Thr	His	Gln	Val	Leu	Gln	Pro	Thr	Leu	Gln	Ala	Arg	Asp	Ala	Gly
			260					265					270		
Ser	Val	His	Leu	Ile	Asn	Phe	Leu	Val	Thr	Arg	Asp	Gly	Leu	Glu	Asp
		275					280					285			
Gln	Leu	Leu	Ala	Ala	Val	Val	Ala	Lys	Glu	Arg	Pro	Asp	Leu	Glu	Gln
	290					295					300				
Leu	Lys	Ala	Asn	Leu	Thr	Lys	Ser	Gln	Asn	Glu	Phe	Lys	Ile	Val	Leu
305					310					315					320
Lys	Glu	Leu	Glu	Asp	Ser	Leu	Leu	Ala	Arg	Leu	Ser	Ala	Ala	Ser	Gly
			325						330					335	
Asn	Phe	Leu	Gly	Asp	Thr	Thr	Leu	Val	Glu	Asn	Leu	Glu	Thr	Thr	Lys
			340					345					350		
His	Thr	Ala	Ser	Glu	Ile	Glu	Glu	Lys	Val	Val	Glu	Ala	Lys	Ile	Thr
		355					360					365			
Glu	Val	Lys	Ile	Asn	Glu	Ala	Arg	Glu	Asn	Tyr	Arg	Pro	Ala	Ala	Glu
	370					375					380				
Arg	Ala	Ser	Leu	Leu	Tyr	Phe	Ile	Leu	Asn	Asp	Leu	Asn	Lys	Ile	Asn
385					390					395					400
Pro	Val	Tyr	Gln	Phe	Ser	Leu	Lys	Ala	Phe	Asn	Val	Val	Phe	Glu	Lys
			405						410					415	
Ala	Ile	Gln	Arg	Thr	Thr	Pro	Ala	Asn	Glu	Val	Lys	Gln	Arg	Val	Ile
			420					425					430		
Asn	Leu	Thr	Asp	Glu	Ile	Thr	Tyr	Ser	Val	Tyr	Met	Tyr	Thr	Ala	Arg
		435					440					445			
Gly	Leu	Phe	Glu	Arg	Asp	Lys	Leu	Ile	Phe	Leu	Ala	Gln	Val	Thr	Phe
	450					455					460				
Gln	Val	Leu	Ser	Met	Lys	Lys	Glu	Leu	Asn	Pro	Val	Glu	Leu	Asp	Phe
465					470					475					480
Leu	Leu	Arg	Phe	Pro	Phe	Lys	Ala	Gly	Val	Val	Ser	Pro	Val	Asp	Phe
			485						490					495	
Leu	Gln	His	Gln	Gly	Trp	Gly	Gly	Ile	Lys	Ala	Leu	Ser	Glu	Met	Asp
			500					505					510		
Glu	Phe	Lys	Asn	Leu	Asp	Ser	Asp	Ile	Glu	Gly	Ser	Ala	Lys	Arg	Trp
		515					520					525			
Lys	Lys	Leu	Val	Glu	Ser	Glu	Ala	Pro	Glu	Lys	Glu	Ile	Phe	Pro	Lys
	530					535					540				
Glu	Trp	Lys	Asn	Lys	Thr	Ala	Leu	Gln	Lys	Leu	Cys	Met	Val	Arg	Cys
545					550					555					560
Leu	Arg	Pro	Asp	Arg	Met	Thr	Tyr	Ala	Ile	Lys	Asn	Phe	Val	Glu	Glu
			565						570					575	
Lys	Met	Gly	Ser	Lys	Phe	Val	Glu	Gly	Arg	Ser	Val	Glu	Phe	Ser	Lys
			580					585					590		
Ser	Tyr	Glu	Glu	Ser	Ser	Pro	Ser	Thr	Ser	Ile	Phe	Phe	Ile	Leu	Ser
		595						600				605			
Pro	Gly	Val	Asp	Pro	Leu	Lys	Asp	Val	Glu	Ala	Leu	Gly	Lys	Lys	Leu
	610					615						620			
Gly	Phe	Thr	Ile	Asp	Asn	Gly	Lys	Leu	His	Asn	Val	Ser	Leu	Gly	Gln
625					630					635					640
Gly	Gln	Glu	Val	Val	Ala	Glu	Asn	Ala	Leu	Asp	Val	Ala	Ala	Glu	Lys
			645						650					655	
Gly	His	Trp	Val	Ile	Leu	Gln	Asn	Ile	His	Leu	Val	Ala	Arg	Trp	Leu
			660					665					670		
Gly	Thr	Leu	Asp	Lys	Lys	Leu	Glu	Arg	Tyr	Ser	Thr	Gly	Ser	His	Glu
		675					680					685			
Asp	Tyr	Arg	Val	Phe	Ile	Ser	Ala	Glu	Pro	Ala	Pro	Ser	Pro	Glu	Thr
	690					695					700				
His	Ile	Ile	Pro	Gln	Gly	Ile	Leu	Glu	Asn	Ala	Ile	Lys	Ile	Thr	Asn
705					710					715					720
Glu	Pro	Pro	Thr	Gly	Met	His	Ala	Asn	Leu	His	Lys	Ala	Leu	Asp	Leu
			725						730					735	
Phe	Thr	Gln	Asp	Thr	Leu	Glu	Met	Cys	Thr	Lys	Glu	Met	Glu	Phe	Lys
			740					745					750		

Cys	Met	Leu	Phe	Ala	Leu	Cys	Tyr	Phe	His	Ala	Val	Val	Ala	Glu	Arg
	755						760					765			
Arg	Lys	Phe	Gly	Ala	Gln	Gly	Trp	Asn	Arg	Ser	Tyr	Pro	Phe	Asn	Asn
	770					775					780				
Gly	Asp	Leu	Thr	Ile	Ser	Ile	Asn	Val	Leu	Tyr	Asn	Tyr	Leu	Glu	Ala
785					790					795					800
Asn	Pro	Lys	Val	Pro	Trp	Asp	Asp	Leu	Arg	Tyr	Leu	Phe	Gly	Glu	Ile
				805					810					815	
Met	Tyr	Gly	Gly	His	Ile	Thr	Asp	Asp	Trp	Asp	Arg	Arg	Leu	Cys	Arg
		820					825						830		
Thr	Tyr	Leu	Ala	Glu	Tyr	Ile	Arg	Thr	Glu	Met	Leu	Glu	Gly	Asp	Val
	835						840					845			
Leu	Leu	Ala	Pro	Gly	Phe	Gln	Ile	Pro	Pro	Asn	Leu	Asp	Tyr	Lys	Gly
	850					855					860				
Tyr	His	Glu	Tyr	Ile	Asp	Glu	Asn	Leu	Pro	Pro	Glu	Ser	Pro	Tyr	Leu
865					870				875						880
Tyr	Gly	Leu	His	Pro	Asn	Ala	Glu	Ile	Gly	Phe	Leu	Thr	Val	Thr	Ser
				885					890					895	
Glu	Lys	Leu	Phe	Arg	Thr	Val	Leu	Glu	Met	Gln	Pro	Lys	Glu	Thr	Asp
			900					905					910		
Ser	Gly	Ala	Gly	Thr	Gly	Val	Ser	Arg	Glu	Glu	Lys	Val	Lys	Ala	Val
	915						920					925			
Leu	Asp	Asp	Ile	Leu	Glu	Lys	Ile	Pro	Glu	Thr	Phe	Asn	Met	Ala	Glu
	930					935					940				
Ile	Met	Ala	Lys	Ala	Ala	Glu	Lys	Thr	Pro	Tyr	Val	Val	Val	Ala	Phe
945					950					955					960
Gln	Glu	Cys	Glu	Arg	Met	Asn	Ile	Leu	Thr	Asn	Glu	Met	Arg	Arg	Ser
				965					970					975	
Leu	Lys	Glu	Leu	Asn	Leu	Gly	Leu	Lys	Gly	Glu	Leu	Thr	Ile	Thr	Thr
			980				985						990		
Asp	Val	Glu	Asp	Leu	Ser	Thr	Ala	Leu	Phe	Tyr	Asp	Thr	Val	Pro	Asp
	995					1000					1005				
Thr	Trp	Val	Ala	Arg	Ala	Tyr	Pro	Ser	Met	Met	Gly	Leu	Ala	Ala	Trp
	1010					1015					1020				
Tyr	Ala	Asp	Leu	Leu	Leu	Arg	Ile	Arg	Glu	Leu	Glu	Ala	Trp	Thr	Thr
1025					1030					1035					1040
Asp	Phe	Ala	Leu	Pro	Thr	Thr	Val	Trp	Leu	Ala	Gly	Phe	Phe	Asn	Pro
				1045					1050					1055	
Gln	Ser	Phe	Leu	Thr	Ala	Ile	Met	Gln	Ser	Met	Ala	Arg	Lys	Asn	Glu
			1060				1065						1070		
Trp	Pro	Leu	Asp	Lys	Met	Cys	Leu	Ser	Val	Glu	Val	Thr	Lys	Lys	Asn
	1075					1080					1085				
Arg	Glu	Asp	Met	Thr	Ala	Pro	Pro	Arg	Glu	Gly	Ser	Tyr	Val	Tyr	Gly
	1090				1095						1100				
Leu	Phe	Met	Glu	Gly	Ala	Arg	Trp	Asp	Thr	Gln	Thr	Gly	Val	Ile	Ala
1105					1110					1115					1120
Glu	Ala	Arg	Leu	Lys	Glu	Leu	Thr	Pro	Ala	Met	Pro	Val	Ile	Phe	Ile
				1125					1130					1135	
Lys	Ala	Ile	Pro	Val	Asp	Arg	Met	Glu	Thr	Lys	Asn	Ile	Tyr	Glu	Cys
		1140					1145					1150			
Pro	Val	Tyr	Lys	Thr	Arg	Ile	Arg	Gly	Pro	Thr	Tyr	Val	Trp	Thr	Phe
	1155					1160					1165				
Asn	Leu	Lys	Thr	Lys	Glu	Lys	Ala	Ala	Lys	Trp	Ile	Leu	Ala	Ala	Val
	1170					1175					1180				
Ala	Leu	Leu	Leu	Gln	Val	*									
1185					1190										

<210> 1016

<211> 476

<212> PRT

<213> Homo sapiens

<400> 1016

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Met Glu Thr Pro Gly Ala Ser Ala Ser Ser Leu Leu Leu Pro Ala Ala
 1      5      10      15
Ser Arg Pro Pro Arg Lys Arg Glu Ala Gly Glu Ala Gly Ala Ala Thr
      20      25      30
Ser Lys Gln Arg Val Leu Asp Glu Glu Glu Tyr Ile Glu Gly Leu Gln
      35      40      45
Thr Val Ile Gln Arg Asp Phe Phe Pro Asp Val Glu Lys Leu Gln Ala
      50      55      60
Gln Lys Glu Tyr Leu Glu Ala Glu Glu Asn Gly Asp Leu Glu Arg Met
      65      70      75      80
Arg Gln Ile Ala Ile Lys Phe Gly Ser Ala Leu Gly Lys Met Ser Arg
      85      90      95
Glu Pro Pro Pro Pro Tyr Val Thr Pro Ala Thr Phe Glu Thr Pro Glu
      100      105      110
Val His Ala Gly Thr Gly Val Val Gly Asn Lys Pro Arg Pro Arg Gly
      115      120      125
Arg Gly Leu Glu Asp Gly Glu Ala Gly Glu Glu Glu Glu Lys Glu Pro
      130      135      140
Leu Pro Ser Leu Asp Val Phe Leu Ser Arg Tyr Thr Ser Glu Asp Asn
      145      150      155      160
Ala Ser Phe Gln Glu Ile Met Glu Val Ala Lys Glu Arg Ser Arg Ala
      165      170      175
Arg His Ala Trp Leu Tyr Gln Ala Glu Glu Glu Phe Glu Lys Arg Gln
      180      185      190
Lys Asp Asn Leu Glu Leu Pro Ser Ala Glu His Gln Ala Ile Glu Ser
      195      200      205
Ser Gln Ala Ser Val Glu Thr Trp Lys Tyr Lys Ala Lys Asn Ser Leu
      210      215      220
Met Tyr Tyr Pro Glu Gly Val Pro Asp Glu Glu Gln Leu Phe Lys Lys
      225      230      235      240
Pro Arg Gln Val Val His Lys Asn Thr Arg Phe Leu Arg Asp Pro Phe
      245      250      255
Ser Gln Ala Leu Ser Arg Cys Gln Leu Gln Gln Ala Ala Ala Leu Asn
      260      265      270
Ala Gln His Lys Gln Gly Lys Val Gly Pro Asp Gly Lys Glu Leu Ile
      275      280      285
Pro Gln Glu Ser Pro Arg Val Gly Gly Phe Gly Phe Val Ala Thr Pro
      290      295      300
Ser Pro Ala Pro Gly Val Asn Glu Ser Pro Met Met Thr Trp Gly Glu
      305      310      315      320
Val Glu Asn Thr Pro Leu Arg Val Glu Gly Ser Glu Thr Pro Tyr Val
      325      330      335
Asp Arg Thr Pro Gly Pro Ala Phe Lys Ile Leu Glu Pro Gly Arg Arg
      340      345      350
Glu Arg Leu Gly Leu Lys Met Ala Asn Glu Ala Ala Ala Lys Asn Arg
      355      360      365
Ala Lys Lys Gln Glu Ala Leu Arg Arg Val Thr Glu Asn Leu Ala Ser
      370      375      380
Leu Thr Pro Lys Gly Leu Ser Pro Ala Met Ser Pro Ala Leu Gln Arg
      385      390      395      400
Leu Val Ser Arg Thr Ala Ser Lys Tyr Thr Asp Arg Ala Leu Arg Ala
      405      410      415
Ser Tyr Thr Pro Ser Pro Ala Arg Ser Thr His Leu Lys Thr Pro Ala
      420      425      430
Ser Gly Leu Gln Thr Pro Thr Ser Thr Pro Ala Pro Gly Ser Ala Thr
      435      440      445
Arg Thr Pro Leu Thr Gln Asp Pro Ala Ser Ile Thr Asp Asn Leu Leu
      450      455      460
Gln Leu Pro Ala Arg Arg Lys Ala Ser Asp Phe Phe
      465      470      475      476

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<210> 1017
 <211> 527
 <212> PRT
 <213> Homo sapiens

<400> 1017
 Met Ala Ser Asn Asp Tyr Thr Gln Gln Ala Thr Gln Ser Tyr Gly Ala
 1 5 10 15
 Tyr Pro Thr Gln Pro Gly Gln Gly Tyr Ser Gln Gln Ser Ser Gln Pro
 20 25 30
 Tyr Gly Gln Gln Ser Tyr Ser Gly Tyr Ser Gln Ser Thr Asp Thr Ser
 35 40 45
 Gly Tyr Gly Gln Ser Ser Tyr Ser Ser Tyr Gly Gln Ser Gln Asn Thr
 50 55 60
 Gly Tyr Gly Thr Gln Ser Thr Pro Gln Gly Tyr Gly Ser Thr Gly Gly
 65 70 75 80
 Tyr Gly Ser Ser Gln Ser Ser Gln Ser Ser Tyr Gly Gln Gln Ser Ser
 85 90 95
 Tyr Pro Gly Tyr Gly Gln Gln Pro Ala Pro Ser Ser Thr Ser Gly Ser
 100 105 110
 Tyr Gly Ser Ser Ser Gln Ser Ser Ser Tyr Gly Gln Pro Gln Ser Gly
 115 120 125
 Ser Tyr Ser Gln Gln Pro Ser Tyr Gly Gly Gln Gln Gln Ser Tyr Gly
 130 135 140
 Gln Gln Gln Ser Tyr Asn Pro Pro Gln Gly Tyr Gly Gln Gln Asn Gln
 145 150 155 160
 Tyr Asn Ser Ser Ser Gly Gly Gly Gly Gly Gly Gly Gly Gly Asn
 165 170 175
 Tyr Gly Gln Asp Gln Ser Ser Met Ser Ser Gly Gly Gly Ser Gly Gly
 180 185 190
 Gly Tyr Gly Asn Gln Asp Gln Ser Gly Gly Gly Gly Ser Gly Gly Tyr
 195 200 205
 Gly Gln Gln Asp Arg Gly Gly Arg Gly Arg Gly Gly Ser Gly Gly Gly
 210 215 220
 Gly Gly Gly Gly Gly Gly Gly Tyr Asn Arg Ser Ser Gly Gly Tyr Glu
 225 230 235 240
 Pro Arg Gly Arg Gly Gly Gly Arg Gly Gly Arg Gly Gly Met Gly Gly
 245 250 255
 Ser Asp Arg Gly Gly Phe Asn Lys Phe Gly Gly Pro Arg Asp Gln Gly
 260 265 270
 Ser Arg His Asp Ser Glu Gln Asp Asn Ser Asp Asn Asn Thr Ile Phe
 275 280 285
 Val Gln Gly Leu Gly Glu Asn Val Thr Ile Glu Ser Val Ala Asp Tyr
 290 295 300
 Phe Lys Gln Ile Gly Ile Ile Lys Thr Asn Lys Lys Thr Gly Gln Pro
 305 310 315 320
 Met Ile Asn Leu Tyr Thr Asp Arg Glu Thr Gly Lys Leu Lys Gly Glu
 325 330 335
 Ala Thr Val Ser Phe Asp Asp Pro Pro Ser Ala Lys Ala Ala Ile Asp
 340 345 350
 Trp Phe Asp Gly Lys Glu Phe Ser Gly Asn Pro Ile Lys Val Ser Phe
 355 360 365
 Ala Thr Arg Arg Ala Asp Phe Asn Arg Gly Gly Gly Asn Gly Arg Gly
 370 375 380
 Gly Arg Gly Arg Gly Gly Pro Met Gly Arg Gly Gly Tyr Gly Gly Gly
 385 390 395 400
 Gly Ser Gly Gly Gly Gly Arg Gly Gly Phe Pro Ser Gly Gly Gly Gly
 405 410 415
 Gly Gly Gly Gln Gln Arg Ala Gly Asp Trp Lys Cys Pro Asn Pro Thr
 420 425 430
 Cys Glu Asn Met Asn Phe Ser Trp Arg Asn Glu Cys Asn Gln Cys Lys
 435 440 445

Ala	Pro	Lys	Pro	Asp	Gly	Pro	Gly	Gly	Gly	Pro	Gly	Gly	Ser	His	Met
450						455				460					
Gly	Gly	Asn	Tyr	Gly	Asp	Asp	Arg	Arg	Gly	Gly	Arg	Gly	Gly	Tyr	Asp
465					470					475					480
Arg	Gly	Gly	Tyr	Arg	Gly	Arg	Gly	Gly	Asp	Arg	Gly	Gly	Phe	Arg	Gly
				485					490					495	
Gly	Arg	Gly	Gly	Gly	Asp	Arg	Gly	Gly	Phe	Gly	Pro	Gly	Lys	Met	Asp
			500					505					510		
Ser	Arg	Gly	Glu	His	Arg	Gln	Asp	Arg	Arg	Glu	Arg	Pro	Tyr	*	
		515					520					525	526		

<210> 1018

<211> 537

<212> PRT

<213> Homo sapiens

<400> 1018

Met	Ala	Ser	Asn	Asp	Tyr	Thr	Gln	Gln	Ala	Thr	Gln	Ser	Tyr	Gly	Ala
1				5					10					15	
Tyr	Pro	Thr	Gln	Pro	Gly	Gln	Gly	Tyr	Ser	Gln	Gln	Ser	Ser	Gln	Pro
			20					25					30		
Tyr	Gly	Gln	Gln	Ser	Tyr	Ser	Gly	Tyr	Ser	Gln	Ser	Thr	Asp	Thr	Ser
		35					40					45			
Gly	Tyr	Gly	Gln	Ser	Ser	Tyr	Ser	Ser	Tyr	Gly	Gln	Ser	Gln	Asn	Thr
	50					55					60				
Gly	Tyr	Gly	Thr	Gln	Ser	Thr	Pro	Gln	Gly	Tyr	Gly	Ser	Thr	Gly	Gly
65				70					75					80	
Tyr	Gly	Ser	Ser	Gln	Ser	Ser	Gln	Ser	Ser	Tyr	Gly	Gln	Gln	Ser	Ser
			85					90						95	
Tyr	Pro	Gly	Tyr	Gly	Gln	Gln	Pro	Ala	Pro	Ser	Ser	Thr	Ser	Gly	Ser
			100					105					110		
Tyr	Gly	Ser	Ser	Ser	Gln	Ser	Ser	Ser	Tyr	Gly	Gln	Pro	Gln	Ser	Gly
	115						120					125			
Ser	Tyr	Ser	Gln	Gln	Pro	Ser	Tyr	Gly	Gly	Gln	Gln	Gln	Ser	Tyr	Gly
	130					135					140				
Gln	Gln	Gln	Ser	Tyr	Asn	Pro	Pro	Gln	Gly	Tyr	Gly	Gln	Gln	Asn	Gln
145				150					155					160	
Tyr	Asn	Ser	Ser	Ser	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Asn
			165					170						175	
Tyr	Gly	Gln	Asp	Gln	Ser	Ser	Met	Ser	Ser	Gly	Gly	Gln	Asp	Gln	Ser
			180					185					190		
Ser	Met	Ser	Ser	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Tyr	Gly	Asn	Gln	Asp
	195						200					205			
Gln	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Tyr	Gly	Gln	Gln	Asp	Arg	Gly
	210					215					220				
Gly	Arg	Gly	Arg	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly	Gly
225				230					235					240	
Gly	Tyr	Asn	Arg	Ser	Ser	Gly	Gly	Tyr	Glu	Pro	Arg	Gly	Arg	Gly	Gly
			245					250						255	
Gly	Arg	Gly	Gly	Arg	Gly	Gly	Met	Gly	Gly	Ser	Asp	Arg	Gly	Gly	Phe
			260					265					270		
Asn	Lys	Phe	Gly	Gly	Pro	Arg	Asp	Gln	Gly	Ser	Arg	His	Asp	Ser	Glu
	275						280					285			
Gln	Asp	Asn	Ser	Asp	Asn	Asn	Thr	Ile	Phe	Val	Gln	Gly	Leu	Gly	Glu
	290					295					300				
Asn	Val	Thr	Ile	Glu	Ser	Val	Ala	Asp	Tyr	Phe	Lys	Gln	Ile	Gly	Ile
305				310					315					320	
Ile	Lys	Thr	Asn	Lys	Lys	Thr	Gly	Gln	Pro	Met	Ile	Asn	Leu	Tyr	Thr
			325					330						335	
Asp	Arg	Glu	Thr	Gly	Lys	Leu	Lys	Gly	Glu	Ala	Thr	Val	Ser	Phe	Asp
			340					345					350		

Asp Pro Pro Ser Ala Lys Ala Ala Ile Asp Trp Phe Asp Gly Lys Glu
 355 360 365
 Phe Ser Gly Asn Pro Ile Lys Val Ser Phe Ala Thr Arg Arg Ala Asp
 370 375 380
 Phe Asn Arg Gly Gly Gly Asn Gly Arg Gly Gly Arg Gly Arg Gly Gly
 385 390 395 400
 Pro Met Gly Arg Gly Gly Tyr Gly Gly Gly Gly Ser Gly Gly Gly Gly
 405 410 415
 Arg Gly Gly Phe Pro Ser Gly Gly Gly Gly Gly Gly Gln Gln Arg
 420 425 430
 Ala Gly Asp Trp Lys Cys Pro Asn Pro Thr Cys Glu Asn Met Asn Phe
 435 440 445
 Ser Trp Arg Asn Glu Cys Asn Gln Cys Lys Ala Pro Lys Pro Asp Gly
 450 455 460
 Pro Gly Gly Gly Pro Gly Gly Ser His Met Gly Gly Asn Tyr Gly Asp
 465 470 475 480
 Asp Arg Arg Gly Gly Arg Gly Gly Tyr Asp Arg Gly Gly Tyr Arg Gly
 485 490 495
 Arg Gly Gly Asp Arg Gly Gly Phe Arg Gly Gly Arg Gly Gly Gly Asp
 500 505 510
 Arg Gly Gly Phe Gly Pro Gly Lys Met Asp Ser Arg Gly Glu His Arg
 515 520 525
 Gln Asp Arg Arg Glu Arg Pro Tyr *
 530 535 536

<210> 1019
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 1019
 Met Leu Trp Ala Gly Ala His Gln His Gly Arg Asn Trp Arg Lys Arg
 1 5 10 15
 Glu Thr Ser Pro Gly Thr Gln Gly Pro Leu Pro Pro Val Pro Arg Ala
 20 25 30
 Arg Pro Ala Leu Met Ala Thr His Ala Ile Ala Pro Thr Leu Ser Trp
 35 40 45
 Ala Ile Pro Arg Gln Gln Cys Ser Pro Gln Pro Gly Arg Leu Asn Ala
 50 55 60
 Leu Pro Pro Asp Arg Cys Ser Gly Pro His Phe Gly Asp Arg Ala Pro
 65 70 75 80
 Glu Ser Cys Phe Pro Gly Ala Cys Ser Val Ser Gly Ala Cys Ala Phe
 85 90 95
 Lys Gly Thr Arg Pro Ala Cys Pro Pro Gln Glu Pro Ser Leu Arg Ser
 100 105 110
 Ser Arg Asn Arg Leu Arg Glu Gly Gln Thr Phe Gly Arg Met Glu Ile
 115 120 125 128
 *

<210> 1020
 <211> 338
 <212> PRT
 <213> Homo sapiens

<400> 1020
 Met Gly Asn Asp Ser Val Ser Tyr Glu Tyr Gly Asp Tyr Ser Asp Leu
 1 5 10 15

Ser Asp Arg Pro Val Asp Cys Leu Asp Gly Ala Cys Leu Ala Ile Asp
 20 25 30
 Pro Leu Arg Val Ala Pro Leu Pro Leu Tyr Ala Ala Ile Phe Leu Val
 35 40 45
 Gly Val Pro Gly Asn Ala Met Val Ala Trp Val Ala Gly Lys Val Ala
 50 55 60
 Arg Arg Arg Val Gly Ala Thr Trp Leu Leu His Leu Ala Val Ala Asp
 65 70 75 80
 Leu Leu Cys Cys Leu Ser Leu Pro Ile Leu Ala Val Pro Ile Ala Arg
 85 90 95
 Gly Gly His Trp Pro Tyr Gly Ala Val Gly Cys Arg Ala Leu Pro Ser
 100 105 110
 Ile Ile Leu Leu Thr Met Tyr Ala Ser Val Leu Leu Leu Ala Ala Leu
 115 120 125
 Ser Ala Asp Leu Cys Phe Leu Ala Leu Gly Pro Ala Trp Trp Ser Thr
 130 135 140
 Val Gln Arg Ala Cys Gly Val Gln Val Ala Cys Gly Ala Ala Trp Thr
 145 150 155 160
 Leu Ala Leu Leu Leu Thr Val Pro Ser Ala Ile Tyr Arg Arg Leu His
 165 170 175
 Gln Glu His Phe Pro Ala Arg Leu Gln Cys Val Val Asp Tyr Gly Gly
 180 185 190
 Ser Ser Ser Thr Glu Asn Ala Val Thr Ala Ile Arg Phe Leu Phe Gly
 195 200 205
 Phe Leu Gly Pro Leu Val Ala Val Ala Ser Cys His Ser Ala Leu Leu
 210 215 220
 Cys Trp Ala Ala Arg Arg Cys Arg Pro Leu Gly Thr Ala Ile Val Val
 225 230 235 240
 Gly Phe Phe Val Cys Trp Ala Pro Tyr His Leu Leu Gly Leu Val Leu
 245 250 255
 Thr Val Ala Ala Pro Asn Ser Ala Leu Leu Ala Arg Ala Leu Arg Ala
 260 265 270
 Glu Pro Leu Ile Val Gly Leu Ala Leu Ala His Ser Cys Leu Asn Pro
 275 280 285
 Met Leu Phe Leu Tyr Phe Gly Arg Ala Gln Leu Arg Arg Ser Leu Pro
 290 295 300
 Ala Ala Cys His Trp Ala Leu Arg Glu Ser Gln Gly Gln Asp Glu Ser
 305 310 315 320
 Val Asp Ser Lys Lys Ser Thr Ser His Asp Leu Val Ser Glu Met Glu
 325 330 335
 Val *
 337

<210> 1021
 <211> 1195
 <212> PRT
 <213> Homo sapiens

<400> 1021
 Met Glu Thr Arg Arg Arg Leu Glu Gln Glu Arg Ala Thr Met Gln Met
 1 5 10 15
 Thr Pro Gly Glu Phe Arg Arg Pro Arg Leu Ala Ser Phe Gly Gly Met
 20 25 30
 Gly Thr Thr Ser Ser Leu Pro Ser Phe Val Gly Ser Gly Asn His Asn
 35 40 45
 Pro Ala Lys His Gln Leu Gln Asn Gly Tyr Gln Gly Asn Gly Asp Tyr
 50 55 60
 Gly Ser Tyr Ala Pro Ala Ala Pro Thr Thr Ser Ser Met Gly Ser Ser
 65 70 75 80
 Ile Arg His Ser Pro Leu Ser Ser Gly Ile Ser Thr Pro Val Thr Asn
 85 90 95

Val	Ser	Pro	Met	His	Leu	Gln	His	Ile	Arg	Glu	Gln	Met	Ala	Ile	Ala
			100					105					110		
Leu	Lys	Arg	Leu	Lys	Glu	Leu	Glu	Glu	Gln	Val	Arg	Thr	Ile	Pro	Val
		115					120					125			
Leu	Gln	Val	Lys	Ile	Ser	Val	Leu	Gln	Glu	Glu	Lys	Arg	Gln	Leu	Val
	130					135					140				
Ser	Gln	Leu	Lys	Asn	Gln	Arg	Ala	Ala	Ser	Gln	Ile	Asn	Val	Cys	Gly
145				150						155					160
Val	Arg	Lys	Arg	Ser	Tyr	Ser	Ala	Gly	Asn	Ala	Ser	Gln	Leu	Glu	Gln
				165				170						175	
Leu	Ser	Arg	Ala	Arg	Arg	Ser	Gly	Gly	Glu	Leu	Tyr	Ile	Asp	Tyr	Glu
			180					185					190		
Glu	Glu	Glu	Met	Glu	Thr	Val	Glu	Gln	Ser	Thr	Gln	Arg	Ile	Lys	Glu
		195					200					205			
Phe	Arg	Gln	Leu	Thr	Ala	Asp	Met	Gln	Ala	Leu	Glu	Gln	Lys	Ile	Gln
	210					215					220				
Asp	Ser	Ser	Cys	Glu	Ala	Ser	Ser	Glu	Leu	Arg	Glu	Asn	Gly	Glu	Cys
225				230						235					240
Arg	Ser	Val	Ala	Val	Gly	Ala	Glu	Glu	Asn	Met	Asn	Asp	Ile	Val	Val
				245					250					255	
Tyr	His	Arg	Gly	Ser	Arg	Ser	Cys	Lys	Asp	Ala	Ala	Val	Gly	Thr	Leu
			260					265					270		
Val	Glu	Met	Arg	Asn	Cys	Gly	Val	Ser	Val	Thr	Glu	Ala	Met	Leu	Gly
		275					280					285			
Val	Met	Thr	Glu	Ala	Asp	Lys	Glu	Ile	Glu	Leu	Gln	Gln	Gln	Thr	Ile
	290					295					300				
Glu	Ser	Leu	Lys	Glu	Lys	Ile	Tyr	Arg	Leu	Glu	Val	Gln	Leu	Arg	Glu
305				310						315					320
Thr	Thr	His	Asp	Arg	Glu	Met	Thr	Lys	Leu	Lys	Gln	Glu	Leu	Gln	Ala
			325					330						335	
Ala	Gly	Ser	Arg	Lys	Lys	Val	Asp	Lys	Ala	Thr	Met	Ala	Gln	Pro	Leu
			340					345					350		
Val	Phe	Ser	Lys	Val	Val	Glu	Ala	Val	Val	Gln	Thr	Arg	Asp	Gln	Met
		355				360						365			
Val	Gly	Ser	His	Met	Asp	Leu	Val	Asp	Thr	Cys	Val	Gly	Thr	Ser	Val
	370					375					380				
Glu	Thr	Asn	Ser	Val	Gly	Ile	Ser	Cys	Gln	Pro	Glu	Cys	Lys	Asn	Lys
385				390						395					400
Val	Val	Gly	Pro	Glu	Leu	Pro	Met	Asn	Trp	Trp	Ile	Val	Lys	Glu	Arg
			405					410						415	
Val	Glu	Met	His	Asp	Arg	Cys	Ala	Gly	Arg	Ser	Val	Glu	Met	Cys	Asp
			420					425				430			
Lys	Ser	Val	Ser	Val	Glu	Val	Ser	Val	Cys	Glu	Thr	Gly	Ser	Asn	Thr
		435				440						445			
Glu	Glu	Ser	Val	Asn	Asp	Leu	Thr	Leu	Leu	Lys	Thr	Asn	Leu	Asn	Leu
	450					455					460				
Lys	Glu	Val	Arg	Ser	Ile	Gly	Cys	Gly	Asp	Cys	Ser	Val	Asp	Val	Thr
465				470						475					480
Val	Cys	Ser	Pro	Lys	Glu	Cys	Ala	Ser	Arg	Gly	Val	Asn	Thr	Glu	Ala
			485					490						495	
Val	Ser	Gln	Val	Glu	Ala	Ala	Val	Met	Ala	Val	Pro	Arg	Thr	Ala	Asp
			500					505					510		
Gln	Asp	Thr	Ser	Thr	Asp	Leu	Glu	Gln	Val	His	Gln	Phe	Thr	Asn	Thr
	515					520						525			
Glu	Thr	Ala	Thr	Leu	Ile	Glu	Ser	Cys	Thr	Asn	Thr	Cys	Leu	Ser	Thr
	530					535					540				
Leu	Asp	Lys	Gln	Thr	Ser	Thr	Gln	Thr	Val	Glu	Thr	Arg	Thr	Val	Ala
545				550						555					560
Val	Gly	Glu	Gly	Arg	Val	Lys	Asp	Ile	Asn	Ser	Ser	Thr	Lys	Thr	Arg
			565					570						575	
Ser	Ile	Gly	Val	Gly	Thr	Leu	Leu	Ser	Gly	His	Ser	Gly	Phe	Asp	Arg
		580						585				590			
Pro	Ser	Ala	Val	Lys	Thr	Lys	Glu	Ser	Gly	Val	Gly	Gln	Ile	Asn	Ile
		595				600						605			

Asn	Asp	Asn	Tyr	Leu	Val	Gly	Leu	Lys	Met	Arg	Thr	Ile	Ala	Cys	Gly
610						615					620				
Pro	Pro	Gln	Leu	Thr	Val	Gly	Leu	Thr	Ala	Ser	Arg	Arg	Ser	Val	Gly
625					630					635					640
Val	Gly	Asp	Asp	Pro	Val	Gly	Glu	Ser	Leu	Glu	Asn	Pro	Gln	Pro	Gln
				645					650					655	
Ala	Pro	Leu	Gly	Met	Met	Thr	Gly	Leu	Asp	His	Tyr	Ile	Glu	Arg	Ile
			660					665					670		
Gln	Lys	Leu	Leu	Ala	Glu	Gln	Gln	Thr	Leu	Leu	Ala	Glu	Asn	Tyr	Ser
		675					680					685			
Glu	Leu	Ala	Glu	Ala	Phe	Gly	Glu	Pro	His	Ser	Gln	Met	Gly	Ser	Leu
	690					695					700				
Asn	Ser	Gln	Leu	Ile	Ser	Thr	Leu	Ser	Ser	Ile	Asn	Ser	Val	Met	Lys
705				710						715					720
Ser	Ala	Ser	Thr	Glu	Glu	Leu	Arg	Asn	Pro	Asp	Phe	Gln	Lys	Thr	Ser
			725					730						735	
Leu	Gly	Lys	Ile	Thr	Gly	Asn	Tyr	Leu	Gly	Tyr	Thr	Cys	Lys	Cys	Gly
			740					745					750		
Gly	Leu	Gln	Ser	Gly	Ser	Pro	Leu	Ser	Ser	Gln	Thr	Ser	Gln	Pro	Glu
		755					760					765			
Gln	Glu	Val	Gly	Thr	Ser	Glu	Gly	Lys	Pro	Ile	Ser	Ser	Leu	Asp	Ala
	770					775					780				
Phe	Pro	Thr	Gln	Glu	Gly	Thr	Leu	Ser	Pro	Val	Asn	Leu	Thr	Asp	Asp
785					790					795					800
Gln	Ile	Ala	Ala	Gly	Leu	Tyr	Ala	Cys	Thr	Asn	Asn	Glu	Ser	Thr	Leu
				805					810					815	
Lys	Ser	Ile	Met	Lys	Lys	Lys	Asp	Gly	Asn	Lys	Asp	Ser	Asn	Gly	Ala
		820						825					830		
Lys	Lys	Asn	Leu	Gln	Phe	Val	Gly	Ile	Asn	Gly	Gly	Tyr	Glu	Thr	Thr
		835					840					845			
Ser	Ser	Asp	Asp	Ser	Ser	Ser	Asp	Glu	Ser	Ser	Ser	Ser	Glu	Ser	Asp
	850					855					860				
Asp	Glu	Cys	Asp	Val	Ile	Glu	Tyr	Pro	Leu	Glu	Glu	Glu	Glu	Glu	Glu
865					870					875					880
Glu	Asp	Glu	Asp	Thr	Arg	Gly	Met	Ala	Glu	Gly	His	His	Ala	Val	Asn
				885					890					895	
Ile	Glu	Gly	Leu	Lys	Ser	Ala	Arg	Val	Glu	Asp	Glu	Met	Gln	Val	Gln
			900					905					910		
Glu	Cys	Glu	Pro	Glu	Lys	Val	Glu	Ile	Arg	Glu	Arg	Tyr	Glu	Leu	Ser
		915					920					925			
Glu	Lys	Met	Leu	Ser	Ala	Cys	Asn	Leu	Leu	Lys	Asn	Thr	Ile	Asn	Asp
	930					935					940				
Pro	Lys	Ala	Leu	Thr	Ser	Lys	Asp	Met	Arg	Phe	Cys	Leu	Asn	Thr	Leu
945					950					955					960
Gln	His	Glu	Trp	Phe	Arg	Val	Ser	Ser	Gln	Lys	Ser	Ala	Ile	Pro	Ala
				965					970					975	
Met	Val	Gly	Asp	Tyr	Ile	Ala	Ala	Phe	Glu	Ala	Ile	Ser	Pro	Asp	Val
			980					985					990		
Leu	Arg	Tyr	Val	Ile	Asn	Leu	Ala	Asp	Gly	Asn	Gly	Asn	Thr	Ala	Leu
		995				1000					1005				
His	Tyr	Ser	Val	Ser	His	Ser	Asn	Phe	Glu	Ile	Val	Lys	Leu	Leu	Leu
	1010					1015					1020				
Asp	Ala	Asp	Val	Cys	Asn	Val	Asp	His	Gln	Asn	Lys	Ala	Gly	Tyr	Thr
1025					1030					1035					1040
Pro	Ile	Met	Leu	Ala	Ala	Leu	Ala	Ala	Val	Glu	Ala	Glu	Lys	Asp	Met
				1045				1050					1055		
Arg	Ile	Val	Glu	Glu	Leu	Phe	Gly	Cys	Gly	Asp	Val	Asn	Ala	Lys	Ala
		1060					1065					1070			
Ser	Gln	Ala	Gly	Gln	Thr	Ala	Leu	Met	Leu	Ala	Val	Ser	His	Gly	Arg
		1075					1080					1085			
Ile	Asp	Met	Val	Lys	Gly	Leu	Leu	Ala	Cys	Gly	Ala	Asp	Val	Asn	Ile
	1090					1095				1100					
Gln	Asp	Asp	Glu	Gly	Ser	Thr	Ala	Leu	Met	Cys	Ala	Ser	Glu	His	Gly
1105					1110					1115					1120

His Val Glu Ile Val Lys Leu Leu Leu Ala Gln Pro Gly Cys Asn Gly
 1125 1130 1135
 His Leu Glu Asp Asn Asp Gly Ser Thr Ala Leu Ser Ile Ala Leu Glu
 1140 1145 1150
 Ala Gly His Lys Asp Ile Ala Val Leu Leu Tyr Ala His Val Asn Phe
 1155 1160 1165
 Ala Lys Ala Gln Ser Pro Gly Thr Pro Arg Leu Gly Arg Lys Thr Ser
 1170 1175 1180
 Pro Gly Pro Thr His Arg Gly Ser Phe Asp *
 1185 1190 1194

<210> 1022
 <211> 366
 <212> PRT
 <213> Homo sapiens

<400> 1022
 Met Gly Arg Lys Lys Ile Gln Ile Ser Arg Ile Leu Asp Gln Arg Asn
 1 5 10 15
 Arg Gln Val Thr Phe Thr Lys Arg Lys Phe Gly Leu Met Lys Lys Ala
 20 25 30
 Tyr Glu Leu Ser Val Leu Cys Asp Cys Glu Ile Ala Leu Ile Ile Phe
 35 40 45
 Asn Ser Ala Asn Arg Leu Phe Gln Tyr Ala Ser Thr Asp Met Asp Arg
 50 55 60
 Val Leu Leu Lys Tyr Thr Glu Tyr Ser Glu Pro His Glu Ser Arg Thr
 65 70 75 80
 Asn Thr Asp Ile Leu Glu Thr Leu Lys Arg Arg Gly Ile Gly Leu Asp
 85 90 95
 Gly Pro Glu Leu Glu Pro Asp Glu Gly Pro Glu Glu Pro Gly Glu Lys
 100 105 110
 Phe Arg Arg Leu Ala Gly Glu Gly Gly Asp Pro Ala Leu Pro Arg Pro
 115 120 125
 Arg Leu Tyr Pro Ala Ala Pro Ala Met Pro Ser Pro Asp Val Val Tyr
 130 135 140
 Gly Ala Leu Pro Pro Pro Gly Cys Asp Pro Ser Gly Leu Gly Glu Ala
 145 150 155 160
 Leu Pro Ala Gln Ser Arg Pro Ser Pro Phe Arg Pro Ala Ala Pro Lys
 165 170 175
 Ala Gly Pro Pro Gly Leu Gly His Pro Leu Phe Ser Pro Ser His Leu
 180 185 190
 Thr Ser Lys Thr Pro Pro Pro Leu Tyr Leu Pro Thr Glu Gly Arg Arg
 195 200 205
 Ser Asp Leu Pro Gly Gly Leu Ala Gly Pro Arg Gly Gly Leu Asn Thr
 210 215 220
 Ser Arg Ser Leu Tyr Ser Gly Leu Gln Asn Pro Cys Ser Thr Ala Thr
 225 230 235 240
 Pro Gly Pro Pro Leu Gly Ser Phe Pro Phe Leu Pro Gly Gly Pro Pro
 245 250 255
 Val Gly Ala Glu Ala Trp Ala Arg Arg Val Pro Gln Pro Ala Ala Pro
 260 265 270
 Pro Arg Arg Pro Pro Gln Ser Ala Ser Ser Leu Ser Ala Ser Leu Arg
 275 280 285
 Pro Pro Gly Ala Pro Ala Thr Phe Leu Arg Pro Ser Pro Ile Pro Cys
 290 295 300
 Ser Ser Pro Gly Pro Trp Gln Ser Leu Cys Gly Leu Gly Pro Pro Cys
 305 310 315 320
 Ala Gly Cys Pro Trp Pro Thr Ala Gly Pro Gly Arg Arg Ser Pro Gly
 325 330 335
 Gly Thr Ser Pro Glu Arg Ser Pro Gly Thr Ala Arg Ala Arg Gly Asp
 340 345 350

Pro Thr Ser Leu Gln Ala Ser Ser Glu Lys Thr Gln Gln *
 355 360 365

<210> 1023
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 1023
 Met Ser Leu Arg Cys Gly Asp Ala Ala Arg Thr Leu Gly Pro Arg Val
 1 5 10 15
 Phe Gly Arg Tyr Phe Cys Ser Pro Val Arg Pro Leu Ser Ser Leu Pro
 20 25 30
 Asp Lys Lys Lys Glu Leu Leu Gln Asn Gly Pro Asp Leu Gln Asp Phe
 35 40 45
 Val Ser Gly Asp Leu Ala Asp Arg Ser Thr Trp Asp Glu Tyr Lys Gly
 50 55 60
 Asn Leu Lys Arg Gln Lys Gly Glu Arg Leu Arg Leu Pro Pro Trp Leu
 65 70 75 80
 Lys Thr Glu Ile Pro Met Gly Lys Asn Tyr Asn Lys Leu Lys Asn Thr
 85 90 95
 Leu Arg Asn Leu Asn Leu His Thr Val Cys Glu Glu Ala Arg Cys Pro
 100 105 110
 Asn Ile Gly Glu Cys Trp Gly Gly Glu Tyr Ala Thr Ala Thr Ala
 115 120 125
 Thr Ile Met Leu Met Gly Asp Thr Cys Thr Arg Gly Cys Arg Phe Cys
 130 135 140
 Ser Val Lys Thr Ala Arg Asn Pro Pro Pro Leu Asp Ala Ser Glu Pro
 145 150 155 160
 Tyr Asn Thr Ala Lys Ala Ile Ala Glu Trp Gly Leu Asp Tyr Val Val
 165 170 175
 Leu Thr Ser Val Asp Arg Asp Asp Met Pro Asp Gly Gly Ala Glu His
 180 185 190
 Ile Ala Lys Thr Val Ser Tyr Leu Lys Glu Arg Asn Pro Lys Ile Leu
 195 200 205
 Val Glu Cys Leu Thr Pro Asp Phe Arg Gly Asp Leu Lys Ala Ile Glu
 210 215 220
 Lys Val Ala Leu Ser Gly Leu Asp Val Tyr Ala His Asn Val Glu Thr
 225 230 235 240
 Val Pro Glu Leu Gln Ser Lys Val Arg Asp Pro Arg Ala Asn Phe Asp
 245 250 255
 Gln Ser Leu Arg Val Leu Lys His Ala Lys Lys Val Gln Pro Asp Val
 260 265 270
 Ile Ser Lys Thr Ser Ile Met Leu Gly Leu Gly Glu Asn Asp Glu Gln
 275 280 285
 Val Tyr Ala Thr Met Lys Ala Leu Arg Glu Ala Asp Val Asp Cys Leu
 290 295 300
 Thr Leu Gly Gln Tyr Met Gln Pro Thr Arg Arg His Leu Lys Val Glu
 305 310 315 320
 Glu Tyr Ile Thr Pro Glu Lys Phe Lys Tyr Trp Glu Lys Val Gly Asn
 325 330 335
 Glu Leu Gly Phe His Tyr Thr Ala Ser Gly Pro Leu Val Arg Ser Ser
 340 345 350
 Tyr Lys Ala Gly Glu Phe Phe Leu Lys Asn Leu Val Ala Lys Arg Lys
 355 360 365
 Thr Lys Asp Leu *
 370 372

<210> 1024

<211> 529
 <212> PRT
 <213> Homo sapiens

<400> 1024

Met	Gln	Gly	Pro	Trp	Val	Leu	Leu	Leu	Leu	Gly	Leu	Arg	Leu	Gln	Leu
1				5					10					15	
Ser	Leu	Gly	Val	Ile	Pro	Ala	Glu	Glu	Glu	Asn	Pro	Ala	Phe	Trp	Asn
			20					25					30		
Arg	Gln	Ala	Ala	Glu	Ala	Leu	Asp	Ala	Ala	Lys	Lys	Leu	Gln	Pro	Ile
		35					40					45			
Gln	Lys	Val	Ala	Lys	Asn	Leu	Ile	Leu	Phe	Leu	Gly	Asp	Gly	Leu	Gly
	50					55					60				
Val	Pro	Thr	Val	Thr	Ala	Thr	Arg	Ile	Leu	Lys	Gly	Gln	Lys	Asn	Gly
65					70					75				80	
Lys	Leu	Gly	Pro	Glu	Thr	Pro	Leu	Ala	Met	Asp	Arg	Phe	Pro	Tyr	Leu
				85				90						95	
Ala	Leu	Ser	Lys	Thr	Tyr	Asn	Val	Asp	Arg	Gln	Val	Pro	Asp	Ser	Ala
			100					105					110		
Ala	Thr	Ala	Thr	Ala	Tyr	Leu	Cys	Gly	Val	Lys	Ala	Asn	Phe	Gln	Thr
		115					120					125			
Ile	Gly	Leu	Ser	Ala	Ala	Ala	Arg	Phe	Asn	Gln	Cys	Asn	Thr	Thr	Arg
	130					135					140				
Gly	Asn	Glu	Val	Ile	Ser	Val	Met	Asn	Arg	Ala	Lys	Gln	Ala	Gly	Lys
145					150					155				160	
Ser	Val	Gly	Val	Val	Thr	Thr	Thr	Arg	Val	Gln	His	Ala	Ser	Pro	Ala
				165				170						175	
Gly	Thr	Tyr	Ala	His	Thr	Val	Asn	Arg	Asn	Trp	Tyr	Ser	Asp	Ala	Asp
			180					185					190		
Met	Pro	Ala	Ser	Ala	Arg	Gln	Glu	Gly	Cys	Gln	Asp	Ile	Ala	Thr	Gln
		195					200					205			
Leu	Ile	Ser	Asn	Met	Asp	Ile	Asp	Val	Ile	Leu	Gly	Gly	Gly	Arg	Lys
	210					215					220				
Tyr	Met	Phe	Pro	Met	Gly	Thr	Pro	Asp	Pro	Glu	Tyr	Pro	Ala	Asp	Ala
225					230					235				240	
Ser	Gln	Asn	Gly	Ile	Arg	Leu	Asp	Gly	Lys	Asn	Leu	Val	Gln	Glu	Trp
			245					250						255	
Leu	Ala	Lys	His	Gln	Gly	Ala	Trp	Tyr	Val	Trp	Asn	Arg	Thr	Glu	Leu
			260					265					270		
Met	Gln	Ala	Ser	Leu	Asp	Gln	Ser	Val	Thr	His	Leu	Met	Gly	Leu	Phe
		275					280					285			
Glu	Pro	Gly	Asp	Thr	Lys	Tyr	Glu	Ile	His	Arg	Asp	Pro	Thr	Leu	Asp
	290					295					300				
Pro	Ser	Leu	Met	Glu	Met	Thr	Glu	Ala	Ala	Leu	Arg	Leu	Leu	Ser	Arg
305					310					315				320	
Asn	Pro	Arg	Gly	Phe	Tyr	Leu	Phe	Val	Glu	Gly	Gly	Arg	Ile	Asp	His
			325						330					335	
Gly	His	His	Glu	Gly	Val	Ala	Tyr	Gln	Ala	Leu	Thr	Glu	Ala	Val	Met
			340					345					350		
Phe	Asp	Asp	Ala	Ile	Glu	Arg	Ala	Gly	Gln	Leu	Thr	Ser	Glu	Glu	Asp
	355						360					365			
Thr	Leu	Thr	Leu	Val	Thr	Ala	Asp	His	Ser	His	Val	Phe	Ser	Phe	Gly
	370					375					380				
Gly	Tyr	Thr	Leu	Arg	Gly	Ser	Ser	Ile	Phe	Gly	Leu	Ala	Pro	Ser	Lys
385					390					395				400	
Ala	Gln	Asp	Ser	Lys	Ala	Tyr	Thr	Ser	Ile	Leu	Tyr	Gly	Asn	Gly	Pro
			405					410						415	
Gly	Tyr	Val	Phe	Asn	Ser	Gly	Val	Arg	Pro	Asp	Val	Asn	Glu	Ser	Glu
			420					425					430		
Ser	Gly	Ser	Pro	Asp	Tyr	Gln	Gln	Gln	Ala	Ala	Val	Pro	Leu	Ser	Ser
		435					440					445			
Glu	Thr	His	Gly	Gly	Glu	Asp	Val	Ala	Val	Phe	Ala	Arg	Gly	Pro	Gln
	450					455						460			

Ala His Leu Val His Gly Val Gln Glu Gln Ser Phe Val Ala His Val
 465 470 475 480
 Met Ala Phe Ala Ala Cys Leu Glu Pro Tyr Thr Ala Cys Asp Leu Ala
 485 490 495
 Pro Pro Ala Cys Thr Thr Asp Ala Ala His Pro Val Ala Ala Ser Leu
 500 505 510
 Pro Leu Leu Ala Gly Thr Leu Leu Leu Leu Gly Ala Ser Ala Ala Pro
 515 520 525 528

*

<210> 1025
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 1025
 Met Asn Arg Leu Phe Gly Lys Ala Lys Pro Lys Ala Pro Pro Pro Ser
 1 5 10 15
 Leu Thr Asp Cys Ile Gly Thr Val Asp Ser Arg Ala Glu Ser Ile Asp
 20 25 30
 Lys Lys Ile Ser Arg Leu Asp Ala Glu Leu Val Lys Tyr Lys Asp Gln
 35 40 45
 Ile Lys Lys Met Arg Glu Gly Pro Ala Lys Asn Met Val Lys Gln Lys
 50 55 60
 Ala Leu Arg Val Leu Lys Gln Lys Arg Met Tyr Glu Gln Gln Arg Asp
 65 70 75 80
 Asn Leu Ala Asn Ser His Ser Thr Trp Thr Ser His Tyr Thr Ile Gln
 85 90 95
 Ser Leu Lys Asp Thr Lys Thr Thr Val Asp Ala Met Lys Leu Gly Val
 100 105 110
 Lys Glu Met Lys Lys Ala Tyr Lys Gln Val Lys Ile Asp Gln Ile Glu
 115 120 125
 Asp Leu Gln Asp Gln Leu Glu Asp Met Met Glu Asp Ala Asn Glu Ile
 130 135 140
 Gln Glu Ala Leu Ser Arg Ser Tyr Gly Thr Pro Glu Leu Asp Glu Asp
 145 150 155 160
 Asp Leu Glu Ala Glu Leu Asp Ala Leu Gly Asp Glu Leu Leu Ala Asp
 165 170 175
 Glu Asp Ser Ser Tyr Leu Asp Glu Ala Ala Ser Ala Pro Ala Ile Pro
 180 185 190
 Glu Gly Val Pro Thr Asp Thr Lys Asn Lys Asp Gly Val Leu Val Asp
 195 200 205
 Glu Phe Gly Leu Pro Gln Ile Pro Ala Ser *
 210 215 218

<210> 1026
 <211> 489
 <212> PRT
 <213> Homo sapiens

<400> 1026
 Met Gln His Val Ser Ser Ser Gln Ser Ser Gln Arg His Val Gln Trp
 1 5 10 15
 Pro Gly Ala Cys Pro Gly Ala Gly Glu Glu Gln Pro Ala Cys Ser Gln
 20 25 30
 Pro Ser Leu Pro Leu Thr Leu Ala Ser Pro Ser His Gln Leu Gln Gln
 35 40 45

```

Leu Met Val Arg Gly Gly Pro Ala Gly Gly Gln Asn Met Asn Val Asp
  50                      55                      60
Leu Gln Gly Val Gly Pro Gly Leu Gln Gly Ser Pro Gln Val Thr Leu
  65                      70                      75                      80
Ala Pro Leu Pro Leu Pro Ser Pro Thr Ser Pro Gly Phe Gln Phe Ser
                      85                      90                      95
Ala Gln Pro Arg Arg Phe Glu His Gly Ser Pro Ser Tyr Ile Gln Val
                      100                      105                      110
Thr Ser Pro Leu Ser Gln Gln Val Gln Thr Gln Ser Pro Thr Gln Pro
                      115                      120                      125
Ser Pro Gly Pro Gly Gln Ala Leu Gln Asn Val Arg Ala Gly Ala Pro
                      130                      135                      140
Gly Pro Gly Leu Gly Leu Cys Ser Ser Ser Pro Thr Gly Asp Phe Val
145                      150                      155                      160
Asp Ala Ser Val Leu Val Arg Gln Ile Ser Leu Ser Pro Ser Ser Gly
                      165                      170                      175
Gly His Phe Val Phe Gln Asp Gly Ser Gly Leu Thr Gln Ile Ala Gln
                      180                      185                      190
Gly Ala Gln Val Gln Leu Gln His Pro Gly Thr Pro Ile Thr Val Arg
                      195                      200                      205
Glu Arg Arg Pro Ser Gln Pro His Thr Gln Ser Gly Gly Thr Ile His
210                      215                      220
His Leu Gly Pro Gln Ser Pro Ala Ala Ala Gly Gly Ala Gly Leu Gln
225                      230                      235                      240
Pro Leu Ala Ser Pro Ser His Ile Thr Thr Ala Asn Leu Pro Pro Gln
                      245                      250                      255
Ile Ser Ser Ile Ile Gln Gly Gln Leu Val Gln Gln Gln Gln Val Leu
260                      265                      270
Gln Gly Pro Pro Leu Pro Arg Pro Leu Gly Phe Glu Arg Thr Pro Gly
275                      280                      285
Val Leu Leu Pro Gly Ala Gly Gly Ala Ala Gly Phe Gly Met Thr Ser
290                      295                      300
Pro Pro Pro Pro Thr Ser Pro Ser Arg Thr Ala Val Pro Pro Gly Leu
305                      310                      315                      320
Ser Ser Leu Pro Leu Thr Ser Val Gly Asn Thr Gly Met Lys Lys Val
                      325                      330                      335
Pro Lys Lys Leu Glu Glu Ile Pro Pro Ala Ser Pro Glu Met Ala Gln
340                      345                      350
Met Arg Lys Gln Cys Leu Asp Tyr His His Gln Glu Met Gln Ala Leu
355                      360                      365
Lys Glu Val Phe Lys Glu Tyr Leu Ile Glu Leu Phe Phe Leu Gln His
370                      375                      380
Phe Gln Gly Asn Met Met Asp Phe Leu Ala Phe Lys Glu Arg Leu Tyr
385                      390                      395                      400
Gly Pro Leu Gln Ala Tyr Leu Arg Gln Asn Asp Leu Asp Ile Glu Glu
                      405                      410                      415
Glu Glu Glu Glu His Phe Glu Val Ile Asn Asp Glu Val Lys Val Val
420                      425                      430
Ala Arg Lys His Gly Gln Pro Gly Thr Pro Val Ala Ile Ala Thr Gln
435                      440                      445
Leu Pro Pro Arg Thr Ser Ala Ala Phe Pro Ala Gln Gln Gln Pro Leu
450                      455                      460
Gln Val Leu Ser Asp Gly Ser Thr Val Gln Leu Pro Arg Leu Ser Ser
465                      470                      475                      480
Leu Gly Phe Glu Asp Ser Met Cys *
                      485                      488

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<210> 1027

<211> 291

<212> PRT

<213> Homo sapiens

<400> 1027

```

Met His Pro Ile Asn Val Arg Arg Asp Pro Ser Ile Pro Ile Tyr Gly
 1          5          10          15
Leu Arg Gln Ser Ile Leu Leu Asn Thr Arg Leu Gln Asp Cys Tyr Val
          20          25          30
Asp Ser Pro Ala Leu Thr Asn Ile Trp Met Ala Arg Thr Cys Ala Lys
          35          40          45
Gln Asn Ile Asn Ala Pro Ala Pro Ala Thr Thr Ser Ser Trp Glu Val
          50          55          60
Val Arg Asn Pro Leu Ile Ala Ser Ser Phe Ser Leu Val Lys Leu Val
          65          70          75          80
Leu Arg Arg Gln Leu Lys Asn Lys Cys Cys Pro Pro Pro Cys Lys Phe
          85          90          95
Gly Glu Gly Lys Leu Ser Lys Arg Leu Lys His Lys Asp Asp Ser Val
          100          105          110
Met Lys Ala Thr Gln Gln Ala Arg Lys Arg Asn Phe Ile Ser Ser Lys
          115          120          125
Ser Lys Gln Pro Ala Gly His Arg Arg Pro Ala Gly Gly Ile Arg Glu
          130          135          140
Ser Lys Glu Ser Ser Lys Glu Lys Lys Leu Thr Val Arg Gln Asp Leu
          145          150          155          160
Glu Asp Arg Tyr Ala Glu His Val Ala Ala Thr Gln Ala Leu Pro Gln
          165          170          175
Asp Ser Gly Thr Ala Ala Trp Lys Gly Arg Val Leu Leu Pro Glu Thr
          180          185          190
Gln Lys Arg Gln Gln Leu Ser Glu Asp Thr Leu Thr Ile His Gly Leu
          195          200          205
Pro Thr Glu Gly Tyr Gln Ala Leu Tyr His Ala Val Val Glu Pro Met
          210          215          220
Leu Trp Asn Pro Ser Gly Thr Pro Lys Arg Tyr Ser Leu Glu Leu Gly
          225          230          235          240
Lys Ala Ile Lys Gln Lys Leu Trp Glu Ala Leu Cys Ser Gln Gly Ala
          245          250          255
Ile Ser Glu Gly Ala Gln Arg Asp Arg Phe Pro Gly Arg Lys Gln Pro
          260          265          270
Gly Val His Glu Glu Pro Val Leu Lys Lys Trp Pro Lys Leu Lys Ser
          275          280          285
Lys Lys *
          290

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<210> 1028

<211> 548

<212> PRT

<213> Homo sapiens

<400> 1028

```

Met Glu Gly Glu Asp Thr Arg Asp Asp Ser Leu Tyr Ser Ile Leu Glu
 1          5          10          15
Glu Leu Trp Gln Asp Ala Glu Gln Ile Lys Arg Cys Gln Glu Lys His
          20          25          30
Asn Lys Leu Leu Ser Arg Thr Thr Phe Leu Asn Lys Lys Ile Leu Asn
          35          40          45
Thr Glu Trp Asp Tyr Glu Tyr Lys Asp Phe Gly Lys Phe Val His Pro
          50          55          60
Ser Pro Asn Leu Ile Leu Ser Gln Lys Arg Pro His Lys Arg Asp Ser
          65          70          75          80
Phe Gly Lys Ser Phe Lys His Asn Leu Asp Leu His Ile His Asn Lys
          85          90          95
Ser Asn Ala Ala Lys Asn Leu Asp Lys Thr Ile Gly His Gly Gln Val
          100          105          110

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Phe	Thr	Gln	Asn	Ser	Ser	Tyr	Ser	His	His	Glu	Asn	Thr	His	Thr	Gly
		115					120					125			
Val	Lys	Phe	Cys	Glu	Arg	Asn	Gln	Cys	Gly	Lys	Val	Leu	Ser	Leu	Lys
	130					135					140				
His	Ser	Leu	Ser	Gln	Asn	Val	Lys	Phe	Pro	Ile	Gly	Glu	Lys	Ala	Asn
145					150					155					160
Thr	Cys	Thr	Glu	Phe	Gly	Lys	Ile	Phe	Thr	Gln	Arg	Ser	His	Phe	Phe
				165					170						175
Ala	Pro	Gln	Lys	Ile	His	Thr	Val	Glu	Lys	Pro	His	Glu	Leu	Ser	Lys
			180					185					190		
Cys	Val	Asn	Val	Phe	Thr	Gln	Lys	Pro	Leu	Leu	Ser	Ile	Tyr	Leu	Arg
		195					200					205			
Val	His	Arg	Asp	Glu	Lys	Leu	Tyr	Ile	Cys	Thr	Lys	Cys	Gly	Lys	Ala
	210					215					220				
Phe	Ile	Gln	Asn	Ser	Glu	Leu	Ile	Met	His	Glu	Lys	Thr	His	Thr	Arg
225					230					235					240
Glu	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Ser	Phe	Phe	Gln	Val
				245					250					255	
Ser	Ser	Leu	Leu	Arg	His	Gln	Thr	Thr	His	Thr	Gly	Glu	Lys	Leu	Phe
			260					265					270		
Glu	Cys	Ser	Glu	Cys	Gly	Lys	Gly	Phe	Ser	Leu	Asn	Ser	Ala	Leu	Asn
		275					280					285			
Ile	His	Gln	Lys	Ile	His	Thr	Gly	Glu	Arg	His	His	Lys	Cys	Ser	Glu
	290					295					300				
Cys	Gly	Lys	Ala	Phe	Thr	Gln	Lys	Ser	Thr	Leu	Arg	Met	His	Gln	Arg
305					310					315					320
Ile	His	Thr	Gly	Glu	Arg	Ser	Tyr	Ile	Cys	Thr	Gln	Cys	Gly	Gln	Ala
			325						330					335	
Phe	Ile	Gln	Lys	Ala	His	Leu	Ile	Ala	His	Gln	Arg	Ile	His	Thr	Gly
		340						345					350		
Glu	Lys	Pro	Tyr	Glu	Cys	Ser	Asp	Cys	Gly	Lys	Ser	Phe	Pro	Ser	Lys
		355					360					365			
Ser	Gln	Leu	Gln	Met	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr
	370					375					380				
Ile	Cys	Thr	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Asn	Arg	Ser	Asn	Leu	Asn
385					390					395					400
Thr	His	Gln	Lys	Ser	His	Thr	Gly	Glu	Lys	Ser	Tyr	Ile	Cys	Ala	Glu
			405						410					415	
Cys	Gly	Lys	Ala	Phe	Thr	Asp	Arg	Ser	Asn	Phe	Asn	Lys	His	Gln	Thr
			420					425					430		
Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Val	Cys	Ala	Asp	Cys	Gly	Arg	Ala
		435					440					445			
Phe	Ile	Gln	Lys	Ser	Glu	Leu	Ile	Thr	His	Gln	Arg	Ile	His	Thr	Thr
	450					455					460				
Glu	Lys	Pro	Tyr	Lys	Cys	Pro	Asp	Cys	Glu	Lys	Ser	Phe	Ser	Lys	Lys
465					470					475					480
Pro	His	Leu	Lys	Val	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr
			485						490					495	
Ile	Cys	Ala	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Asp	Arg	Ser	Asn	Phe	Asn
		500						505					510		
Lys	His	Gln	Thr	Ile	His	Thr	Gly	Asp	Lys	Pro	Tyr	Lys	Cys	Ser	Asp
	515						520					525			
Cys	Gly	Lys	Gly	Phe	Thr	Gln	Lys	Ser	Val	Leu	Ser	Met	His	Arg	Asn
	530					535					540				
Ile	His	Thr	*												
545		547													

<210> 1029

<211> 578

<212> PRT

<213> Homo sapiens

<400> 1029

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Met Gly Ser Arg His Phe Glu Gly Ile Tyr Asp His Val Gly His Phe
 1          5          10          15
Gly Arg Phe Gln Arg Val Leu Tyr Phe Ile Cys Ala Phe Gln Asn Ile
          20          25          30
Ser Cys Gly Ile His Tyr Leu Ala Ser Val Phe Met Gly Val Thr Pro
          35          40          45
His His Val Cys Arg Pro Pro Gly Asn Val Ser Gln Val Val Phe His
          50          55          60
Asn His Ser Asn Trp Ser Leu Glu Asp Thr Gly Ala Leu Leu Ser Ser
          65          70          75          80
Gly Gln Lys Asp Tyr Val Thr Val Gln Leu Gln Asn Gly Glu Ile Trp
          85          90          95
Glu Leu Ser Arg Cys Ser Arg Asn Lys Arg Glu Asn Thr Ser Ser Leu
          100          105          110
Gly Tyr Glu Tyr Thr Gly Ser Lys Lys Glu Phe Pro Cys Val Asp Gly
          115          120          125
Tyr Ile Tyr Asp Gln Asn Thr Trp Lys Ser Thr Ala Val Thr Gln Trp
          130          135          140
Asn Leu Val Cys Asp Arg Lys Trp Leu Ala Met Leu Ile Gln Pro Leu
          145          150          155          160
Phe Met Phe Gly Val Leu Leu Gly Ser Val Thr Phe Gly Tyr Phe Ser
          165          170          175
Asp Arg Leu Gly Arg Arg Val Val Leu Trp Ala Thr Ser Ser Ser Met
          180          185          190
Phe Leu Phe Gly Ile Ala Ala Ala Phe Ala Val Asp Tyr Tyr Thr Phe
          195          200          205
Met Ala Ala Arg Phe Phe Leu Ala Met Val Ala Ser Gly Tyr Leu Val
          210          215          220
Val Gly Phe Val Tyr Val Met Glu Phe Ile Gly Met Lys Ser Arg Thr
          225          230          235          240
Trp Ala Ser Val His Leu His Ser Phe Phe Ala Val Gly Thr Leu Leu
          245          250          255
Val Ala Leu Thr Gly Tyr Leu Val Arg Thr Trp Trp Leu Tyr Gln Met
          260          265          270
Ile Leu Ser Thr Val Thr Val Pro Phe Ile Leu Cys Cys Trp Val Leu
          275          280          285
Pro Glu Thr Pro Phe Trp Leu Leu Ser Glu Gly Arg Tyr Glu Glu Ala
          290          295          300
Gln Lys Ile Val Asp Ile Met Ala Lys Trp Asn Arg Ala Ser Ser Cys
          305          310          315          320
Lys Leu Ser Glu Leu Leu Ser Leu Asp Leu Gln Gly Pro Val Ser Asn
          325          330          335
Ser Pro Thr Glu Val Gln Lys His Asn Leu Ser Tyr Leu Phe Tyr Asn
          340          345          350
Trp Ser Ile Thr Lys Arg Thr Leu Thr Val Trp Leu Ile Trp Phe Thr
          355          360          365
Gly Ser Leu Gly Phe Tyr Ser Phe Ser Leu Asn Ser Val Asn Leu Gly
          370          375          380
Gly Asn Glu Tyr Leu Asn Leu Phe Leu Leu Gly Val Val Glu Ile Pro
          385          390          395          400
Ala Tyr Thr Phe Val Cys Ile Ala Met Asp Lys Val Gly Arg Arg Thr
          405          410          415
Val Leu Ala Tyr Ser Leu Phe Cys Ser Ala Leu Ala Cys Gly Val Val
          420          425          430
Met Val Ile Pro Gln Lys His Tyr Ile Leu Gly Val Val Thr Ala Met
          435          440          445
Val Gly Lys Phe Ala Ile Gly Ala Ala Phe Gly Leu Ile Tyr Leu Tyr
          450          455          460
Thr Ala Glu Leu Tyr Pro Thr Ile Val Arg Ser Leu Ala Val Gly Ser
          465          470          475          480
Gly Ser Met Val Cys Arg Leu Ala Ser Ile Leu Ala Pro Phe Ser Val
          485          490          495

```

Asp Leu Ser Ser Ile Trp Ile Phe Ile Pro Gln Leu Phe Val Gly Thr
 500 505 510
 Met Ala Leu Leu Ser Gly Val Leu Thr Leu Lys Leu Pro Glu Thr Leu
 515 520 525
 Gly Lys Arg Leu Ala Thr Thr Trp Glu Glu Ala Ala Lys Leu Glu Ser
 530 535 540
 Glu Asn Glu Ser Lys Ser Ser Lys Leu Leu Leu Thr Thr Asn Asn Ser
 545 550 555 560
 Gly Leu Glu Lys Thr Glu Ala Ile Thr Pro Arg Asp Ser Gly Leu Gly
 565 570 575
 Glu *
 577

<210> 1030
 <211> 364
 <212> PRT
 <213> Homo sapiens

<400> 1030
 Met Met Thr Pro Glu Val Leu Ala Glu Ala Tyr Gly Lys Lys Glu Trp
 1 5 10 15
 Lys His Phe Leu Ser Asp Thr Gly Met Ala Cys Arg Ser Gly Lys Tyr
 20 25 30
 Tyr Phe Tyr Asp Asn Tyr Phe Asp Leu Pro Gly Ala Leu Leu Cys Ala
 35 40 45
 Arg Val Val Asp Tyr Leu Thr Lys Leu Asn Asn Gly Gln Lys Thr Phe
 50 55 60
 Asp Phe Trp Lys Asp Ile Val Ala Ala Ile Gln His Asn Tyr Lys Met
 65 70 75 80
 Ser Ala Phe Lys Glu Asn Cys Gly Ile Tyr Phe Pro Glu Ile Lys Arg
 85 90 95
 Asp Pro Gly Arg Tyr Leu His Ser Cys Pro Glu Ser Val Lys Lys Trp
 100 105 110
 Leu Arg Gln Leu Lys Asn Ala Gly Lys Ile Leu Leu Leu Ile Thr Ser
 115 120 125
 Ser His Ser Asp Tyr Cys Arg Leu Leu Cys Glu Tyr Ile Leu Gly Asn
 130 135 140
 Asp Phe Thr Asp Leu Phe Asp Ile Val Ile Thr Asn Ala Leu Lys Pro
 145 150 155 160
 Gly Phe Phe Ser His Leu Pro Ser Gln Arg Pro Phe Arg Thr Leu Glu
 165 170 175
 Asn Asp Glu Glu Gln Glu Ala Leu Pro Ser Leu Asp Lys Pro Gly Trp
 180 185 190
 Tyr Ser Gln Gly Asn Ala Val His Leu Tyr Glu Leu Leu Lys Lys Met
 195 200 205
 Thr Gly Lys Pro Glu Pro Lys Val Val Tyr Phe Gly Asp Ser Met His
 210 215 220
 Ser Asp Ile Phe Pro Ala Arg His Tyr Ser Asn Trp Glu Thr Val Leu
 225 230 235 240
 Ile Leu Glu Glu Leu Arg Gly Asp Glu Gly Thr Arg Ser Gln Arg Pro
 245 250 255
 Glu Glu Ser Glu Pro Leu Glu Lys Lys Gly Lys Tyr Glu Gly Pro Lys
 260 265 270
 Ala Lys Pro Leu Asn Thr Ser Ser Lys Lys Trp Gly Ser Phe Phe Ile
 275 280 285
 Asp Ser Val Leu Gly Leu Glu Asn Thr Glu Asp Ser Leu Val Tyr Thr
 290 295 300
 Trp Ser Cys Lys Arg Ile Ser Thr Tyr Ser Thr Ile Ala Ile Pro Ser
 305 310 315 320
 Ile Glu Ala Ile Ala Glu Leu Pro Leu Asp Tyr Lys Phe Thr Arg Phe
 325 330 335

Ser Ser Ser Asn Ser Lys Thr Ala Gly Tyr Tyr Pro Asn Pro Pro Leu
 340 345 350
 Val Leu Ser Ser Asp Glu Thr Leu Ile Ser Lys *
 355 360 363

<210> 1031
 <211> 694
 <212> PRT
 <213> Homo sapiens

<400> 1031
 Met Thr Pro Gln Ser Leu Leu Gln Thr Thr Leu Phe Leu Leu Ser Leu
 1 5 10 15
 Leu Phe Leu Val Gln Gly Ala His Gly Arg Gly His Arg Glu Asp Phe
 20 25 30
 Arg Phe Cys Ser Gln Arg Asn Gln Thr His Arg Ser Ser Leu His Tyr
 35 40 45
 Lys Pro Thr Pro Asp Leu Arg Ile Ser Ile Glu Asn Ser Glu Glu Ala
 50 55 60
 Leu Thr Val His Ala Pro Phe Pro Ala Ala His Pro Ala Ser Arg Ser
 65 70 75 80
 Phe Pro Asp Pro Arg Gly Leu Tyr His Phe Cys Leu Tyr Trp Asn Arg
 85 90 95
 His Ala Gly Arg Leu His Leu Leu Tyr Gly Lys Arg Asp Phe Leu Leu
 100 105 110
 Ser Asp Lys Ala Ser Ser Leu Leu Cys Phe Gln His Gln Glu Glu Ser
 115 120 125
 Leu Ala Gln Gly Pro Pro Leu Leu Ala Thr Ser Val Thr Ser Trp Trp
 130 135 140
 Ser Pro Gln Asn Ile Ser Leu Pro Ser Ala Ala Ser Phe Thr Phe Ser
 145 150 155 160
 Phe His Ser Pro Pro His Thr Ala Ala His Asn Ala Ser Val Asp Met
 165 170 175
 Cys Glu Leu Lys Arg Asp Leu Gln Leu Leu Ser Gln Phe Leu Lys His
 180 185 190
 Pro Gln Lys Ala Ser Arg Arg Pro Ser Ala Ala Pro Ala Ser Gln Gln
 195 200 205
 Leu Gln Ser Leu Glu Ser Lys Leu Thr Ser Val Arg Phe Met Gly Asp
 210 215 220
 Met Val Ser Phe Glu Glu Asp Arg Ile Asn Ala Thr Val Trp Lys Leu
 225 230 235 240
 Gln Pro Thr Ala Gly Leu Gln Asp Leu His Ile His Ser Arg Gln Glu
 245 250 255
 Glu Glu Gln Ser Glu Ile Met Glu Tyr Ser Val Leu Leu Pro Arg Thr
 260 265 270
 Leu Phe Gln Arg Thr Lys Gly Arg Ser Gly Glu Ala Glu Lys Arg Leu
 275 280 285
 Leu Leu Val Asp Phe Ser Ser Gln Ala Leu Phe Gln Asp Lys Asn Ser
 290 295 300
 Ser Gln Val Leu Gly Glu Lys Val Leu Gly Ile Val Val Gln Asn Thr
 305 310 315 320
 Lys Val Ala Asn Leu Thr Glu Pro Val Val Leu Thr Phe Gln His Gln
 325 330 335
 Leu Gln Pro Lys Asn Val Thr Leu Gln Cys Val Phe Trp Val Glu Asp
 340 345 350
 Pro Thr Leu Ser Ser Pro Gly His Trp Ser Ser Ala Gly Cys Glu Thr
 355 360 365
 Val Arg Arg Glu Thr Gln Thr Ser Cys Phe Cys Asn His Leu Thr Tyr
 370 375 380
 Phe Ala Val Leu Met Val Ser Ser Val Glu Val Asp Ala Val His Lys
 385 390 395 400

His Tyr Leu Ser Leu Leu Ser Tyr Val Gly Cys Val Val Ser Ala Leu
 405 410 415
 Ala Cys Leu Val Thr Ile Ala Ala Tyr Leu Cys Ser Arg Val Pro Leu
 420 425 430
 Pro Cys Arg Arg Lys Pro Arg Asp Tyr Thr Ile Lys Val His Met Asn
 435 440 445
 Leu Leu Leu Ala Val Phe Leu Leu Asp Thr Ser Phe Leu Leu Ser Glu
 450 455 460
 Pro Val Ala Leu Thr Gly Ser Glu Ala Gly Cys Arg Ala Ser Ala Ile
 465 470 475 480
 Phe Leu His Phe Ser Leu Leu Thr Cys Leu Ser Trp Met Gly Leu Glu
 485 490 495
 Gly Tyr Asn Leu Tyr Arg Leu Val Val Gly Val Phe Gly Thr Tyr Val
 500 505 510
 Pro Gly Tyr Leu Leu Lys Leu Ser Ala Met Gly Trp Gly Phe Pro Ile
 515 520 525
 Phe Leu Val Thr Leu Val Ala Leu Val Asp Val Asp Asn Tyr Gly Pro
 530 535 540
 Ile Ile Leu Ala Val His Arg Thr Pro Glu Gly Val Ile Tyr Pro Ser
 545 550 555 560
 Met Cys Trp Ile Arg Asp Ser Leu Val Ser Tyr Ile Thr Asn Leu Gly
 565 570 575
 Leu Phe Ser Leu Val Phe Leu Phe Asn Met Ala Met Leu Ala Thr Met
 580 585 590
 Val Val Gln Ile Leu Arg Leu Arg Pro His Thr Gln Lys Trp Ser His
 595 600 605
 Val Leu Thr Leu Leu Gly Leu Ser Leu Val Leu Gly Leu Pro Trp Ala
 610 615 620
 Leu Ile Phe Phe Ser Phe Ala Ser Gly Thr Phe Gln Leu Val Val Leu
 625 630 635 640
 Tyr Leu Phe Ser Ile Ile Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile
 645 650 655
 Trp Tyr Trp Ser Met Arg Leu⁹ Gln Ala Arg Gly Gly Pro Ser Pro Leu
 660 665 670
 Lys Ser Asn Ser Asp Ser Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr
 675 680 685
 Ser Ser Ser Arg Ile *
 690 693

<210> 1032

<211> 308

<212> PRT

<213> Homo sapiens

<400> 1032

Phe Gly Pro Arg Gly Gln Glu Phe Gly Thr Arg Ser Arg Gly Gln Leu
 1 5 10 15
 Asp Ala Gly Gln Ser Ser Glu Gln His Gly Gly Asn Arg Gln Pro Glu
 20 25 30
 Gln Ser Arg Ser Arg Ser Ser Ser Ser Ser Ser Pro Arg Arg Ser
 35 40 45
 Arg Ser Ala Ala Glu Pro Ala Met Ala Leu Ser Met Pro Leu Asn Gly
 50 55 60
 Leu Lys Glu Glu Asp Lys Glu Pro Leu Ile Glu Leu Phe Val Lys Ala
 65 70 75 80
 Gly Ser Asp Gly Glu Ser Ile Gly Asn Cys Pro Phe Ser Gln Arg Leu
 85 90 95
 Phe Met Ile Leu Trp Leu Lys Gly Val Val Phe Ser Val Thr Thr Val
 100 105 110
 Asp Leu Lys Arg Lys Pro Ala Asp Leu Gln Asn Leu Ala Pro Gly Thr
 115 120 125

His	Pro	Pro	Phe	Ile	Thr	Phe	Asn	Ser	Glu	Val	Lys	Thr	Asp	Val	Asn
130						135					140				
Lys	Ile	Glu	Glu	Phe	Leu	Glu	Glu	Val	Leu	Cys	Pro	Pro	Lys	Tyr	Leu
145					150					155					160
Lys	Leu	Ser	Pro	Lys	His	Pro	Glu	Ser	Asn	Thr	Ala	Gly	Met	Asp	Ile
				165					170					175	
Phe	Ala	Lys	Phe	Ser	Ala	Tyr	Ile	Lys	Asn	Ser	Arg	Pro	Glu	Ala	Asn
			180					185					190		
Glu	Ala	Leu	Glu	Arg	Gly	Leu	Leu	Lys	Thr	Leu	Gln	Lys	Leu	Asp	Glu
		195				200					205				
Tyr	Leu	Asn	Ser	Pro	Leu	Pro	Asp	Glu	Ile	Asp	Glu	Asn	Ser	Met	Glu
	210					215					220				
Asp	Ile	Lys	Phe	Ser	Thr	Arg	Lys	Phe	Leu	Asp	Gly	Asn	Glu	Met	Thr
225					230					235					240
Leu	Ala	Asp	Cys	Asn	Leu	Leu	Pro	Lys	Leu	His	Ile	Val	Lys	Val	Val
				245					250					255	
Ala	Lys	Lys	Tyr	Arg	Asn	Phe	Asp	Ile	Pro	Lys	Glu	Met	Thr	Gly	Ile
			260					265					270		
Trp	Arg	Tyr	Leu	Thr	Asn	Ala	Tyr	Ser	Arg	Asp	Glu	Phe	Thr	Asn	Thr
		275					280						285		
Cys	Pro	Ser	Asp	Lys	Glu	Val	Glu	Ile	Ala	Tyr	Ser	Asp	Val	Ala	Lys
	290					295					300				
Arg	Leu	Thr	Lys												
305			308												

<210> 1033
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 1033

Met	Gln	Val	Ile	His	Gly	Pro	His	Val	Glu	Lys	Leu	Gln	Ser	Pro	Leu
1				5					10					15	
Gly	Pro	His	Arg	Pro	Ser	Pro	Arg	Cys	Pro	Leu	Ser	Val	Val	Thr	Gly
			20					25					30		
Pro	Asp	Leu	Gln	Glu	Cys	Thr	Phe	His	Ser	Thr	Arg	Lys	Pro	Tyr	Asp
		35					40					45			
Ile	Leu	Arg	Leu	Pro	Arg	Pro	Ala	Ala	Cys	Met	Gly	Pro	Leu	Pro	Ser
	50					55					60				
Ser	Thr	Pro	Thr	Leu	Arg	Met	Val	Pro	Cys	Ser	Ala	Leu	Val	Leu	Cys
	65				70					75					80
Trp	Pro	Leu	Pro	Ala	Thr	Pro	Thr	Leu	Arg	His	Pro	Gly	Val	Val	Gly
				85					90					95	
Pro	Asn	Trp	Leu	Ala	Pro	Pro	Ser	Ala	Ala	Leu	Cys	Arg	Pro	Asp	Ala
			100					105					110		
Ala	Val	Trp	Pro	Asp	Leu	Pro	Ser	Ser	Asn	Ile	Leu	Leu	Val	Thr	Pro
		115					120					125			
Pro	Pro	Ala	Lys	*											
	130		132												

<210> 1034
 <211> 542
 <212> PRT
 <213> Homo sapiens

<400> 1034

Met	Arg	Leu	Lys	Met	Thr	Thr	Arg	Asn	Phe	Pro	Glu	Arg	Glu	Val	Pro
1				5					10					15	

Cys	Asp	Val	Glu	Val	Glu	Arg	Phe	Thr	Arg	Glu	Val	Pro	Cys	Leu	Ser	20	25	30
Ser	Leu	Gly	Asp	Gly	Trp	Asp	Cys	Glu	Asn	Gln	Glu	Gly	His	Leu	Arg	35	40	45
Gln	Ser	Ala	Leu	Thr	Leu	Glu	Lys	Pro	Gly	Thr	Gln	Glu	Ala	Ile	Cys	50	55	60
Glu	Tyr	Pro	Gly	Phe	Gly	Glu	His	Leu	Ile	Ala	Ser	Ser	Asp	Leu	Pro	65	70	75
Pro	Ser	Gln	Arg	Val	Leu	Ala	Thr	Asn	Gly	Phe	His	Ala	Pro	Asp	Ser	85	90	95
Asn	Val	Ser	Gly	Leu	Asp	Cys	Asp	Pro	Ala	Leu	Pro	Ser	Tyr	Pro	Lys	100	105	110
Ser	Tyr	Ala	Asp	Lys	Arg	Thr	Gly	Asp	Ser	Asp	Ala	Cys	Gly	Lys	Gly	115	120	125
Phe	Asn	His	Ser	Met	Glu	Val	Ile	His	Gly	Arg	Asn	Pro	Val	Arg	Glu	130	135	140
Lys	Pro	Tyr	Lys	Tyr	Pro	Glu	Ser	Val	Lys	Ser	Phe	Asn	His	Phe	Thr	145	150	155
Ser	Leu	Gly	His	Gln	Lys	Ile	Met	Lys	Arg	Gly	Lys	Lys	Ser	Tyr	Glu	165	170	175
Gly	Lys	Asn	Phe	Glu	Asn	Ile	Phe	Thr	Leu	Ser	Ser	Ser	Leu	Asn	Glu	180	185	190
Asn	Gln	Arg	Asn	Leu	Pro	Gly	Glu	Lys	Gln	Tyr	Arg	Cys	Thr	Glu	Cys	195	200	205
Gly	Lys	Cys	Phe	Lys	Arg	Asn	Ser	Ser	Leu	Val	Leu	His	His	Arg	Thr	210	215	220
His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Asn	Glu	Cys	Gly	Lys	Ser	Phe	225	230	235
Ser	Lys	Asn	Tyr	Asn	Leu	Ile	Val	His	Gln	Arg	Ile	His	Thr	Gly	Glu	245	250	255
Lys	Pro	Tyr	Glu	Cys	Ser	Lys	Cys	Gly	Lys	Ala	Phe	Ser	Asp	Gly	Ser	260	265	270
Ala	Leu	Thr	Gln	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	275	280	285
Cys	Leu	Glu	Cys	Gly	Lys	Thr	Phe	Asn	Arg	Asn	Ser	Ser	Leu	Ile	Leu	290	295	300
His	Gln	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Arg	Cys	Asn	Glu	Cys	305	310	315
Gly	Lys	Pro	Phe	Thr	Asp	Ile	Ser	His	Leu	Thr	Val	His	Leu	Arg	Ile	325	330	335
His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Ser	Lys	Cys	Gly	Lys	Ala	Phe	340	345	350
Arg	Asp	Gly	Ser	Tyr	Leu	Thr	Gln	His	Glu	Arg	Thr	His	Thr	Gly	Glu	355	360	365
Lys	Pro	Phe	Glu	Cys	Ala	Glu	Cys	Gly	Lys	Ser	Phe	Asn	Arg	Asn	Ser	370	375	380
His	Leu	Ile	Val	His	Gln	Lys	Ile	His	Ser	Gly	Glu	Lys	Pro	Tyr	Glu	385	390	395
Cys	Lys	Glu	Cys	Gly	Lys	Thr	Phe	Ile	Glu	Ser	Ala	Tyr	Leu	Ile	Arg	405	410	415
His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Gly	Cys	Asn	Gln	Cys	420	425	430
Gln	Lys	Leu	Phe	Arg	Asn	Ile	Ala	Gly	Leu	Ile	Arg	His	Gln	Arg	Thr	435	440	445
His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Gln	Cys	Gly	Lys	Ala	Phe	450	455	460
Arg	Asp	Ser	Ser	Cys	Leu	Thr	Lys	His	Gln	Arg	Ile	His	Thr	Lys	Glu	465	470	475
Thr	Pro	Tyr	Gln	Cys	Pro	Glu	Cys	Gly	Lys	Ser	Phe	Lys	Gln	Asn	Ser	485	490	495
His	Leu	Ala	Val	His	Gln	Arg	Leu	His	Ser	Arg	Glu	Gly	Pro	Ser	Arg	500	505	510
Cys	Pro	Gln	Cys	Gly	Lys	Met	Phe	Gln	Lys	Ser	Ser	Ser	Leu	Val	Arg	515	520	525

His Gln Arg Ala His Leu Gly Glu Gln Pro Met Glu Thr *
 530 535 540 541

<210> 1035
 <211> 508
 <212> PRT
 <213> Homo sapiens

<400> 1035
 Leu Pro Asp Arg Asn Ser Arg Val Asp Pro Arg Val Arg Ser Leu Thr
 1 5 10 15
 Glu Leu Leu Ser Phe Phe Gln Pro Thr Ala His Ser Leu Thr Ser Leu
 20 25 30
 Leu Gly Thr Met Thr Thr Cys Ser Arg Gln Phe Thr Ser Ser Ser
 35 40 45
 Met Lys Gly Ser Cys Gly Ile Gly Gly Gly Ile Gly Gly Gly Ser Ser
 50 55 60
 Arg Ile Ser Ser Val Leu Ala Gly Gly Ser Cys Arg Ala Pro Ser Thr
 65 70 75 80
 Tyr Gly Gly Gly Leu Ser Val Ser Ser Arg Phe Ser Ser Gly Gly Ala
 85 90 95
 Cys Gly Leu Gly Gly Gly Tyr Gly Gly Gly Phe Ser Ser Ser Ser Ser
 100 105 110
 Phe Gly Ser Gly Phe Gly Gly Gly Tyr Gly Gly Gly Leu Gly Ala Gly
 115 120 125
 Phe Gly Gly Gly Leu Gly Ala Gly Phe Gly Gly Gly Phe Ala Gly Gly
 130 135 140
 Asp Gly Leu Leu Val Gly Ser Glu Lys Val Thr Met Gln Asn Leu Asn
 145 150 155 160
 Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala
 165 170 175
 Asn Ala Asp Leu Glu Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Arg
 180 185 190
 Pro Ser Glu Ile Lys Asp Tyr Ser Pro Tyr Phe Lys Thr Ile Glu Asp
 195 200 205
 Leu Arg Asn Lys Ile Ile Ala Ala Thr Ile Glu Asn Ala Gln Pro Ile
 210 215 220
 Leu Gln Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys
 225 230 235 240
 Tyr Glu His Glu Leu Ala Leu Arg Gln Thr Val Glu Ala Asp Val Asn
 245 250 255
 Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu
 260 265 270
 Glu Met Gln Ile Glu Gly Leu Lys Glu Glu Leu Ala Tyr Leu Arg Lys
 275 280 285
 Asn His Glu Glu Glu Met Leu Ala Leu Arg Gly Gln Thr Gly Gly Asp
 290 295 300
 Val Asn Val Glu Met Asp Ala Ala Pro Gly Val Asp Leu Ser Arg Ile
 305 310 315 320
 Leu Asn Glu Met Arg Asp Gln Tyr Glu Gln Met Ala Glu Lys Asn Arg
 325 330 335
 Arg Asp Ala Glu Thr Trp Phe Leu Ser Lys Thr Glu Glu Leu Asn Lys
 340 345 350
 Glu Val Ala Ser Asn Ser Glu Leu Val Gln Ser Ser Arg Ser Glu Val
 355 360 365
 Thr Glu Leu Arg Arg Val Leu Gln Gly Leu Glu Ile Glu Leu Gln Ser
 370 375 380
 Gln Leu Ser Met Lys Ala Ser Leu Glu Asn Ser Leu Glu Glu Thr Lys
 385 390 395 400
 Gly Arg Tyr Cys Met Gln Leu Ser Gln Ile Gln Gly Leu Ile Gly Ser
 405 410 415

Val Glu Glu Gln Leu Ala Gln Leu Arg Cys Glu Met Glu Gln Gln Ser
 420 425 430
 Gln Glu Tyr Gln Ile Leu Leu Asp Val Lys Thr Arg Leu Glu Gln Glu
 435 440 445
 Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Asp Ala His Leu Ser
 450 455 460
 Ser Gln Gln Ala Ser Gly Gln Ser Tyr Ser Ser Arg Glu Val Phe Thr
 465 470 475 480
 Ser Ser Ser Ser Ser Ser Ser Arg Gln Thr Arg Pro Ile Leu Lys Glu
 485 490 495
 Gln Ser Ser Ser Ser Phe Ser Gln Gly Gln Ser Ser
 500 505 508

<210> 1036
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 1036
 Met Ser His Ala Gly Thr Gly Asn Ile Val Val Ile Met Ile Ser Tyr
 1 5 10 15
 Pro Lys Gly Arg Glu Ile Leu Glu Leu Val Gln Lys Gly Ile Pro Val
 20 25 30
 Thr Met Thr Ile Gly Val Gly Thr Arg His Val Gln Glu Phe Ile Ser
 35 40 45
 Gly Gln Ser Val Val Phe Val Ala Ile Ala Phe Ile Thr Met Met Ile
 50 55 60
 Ile Ser Leu Ala Trp Leu Ile Phe Tyr Tyr Ile Gln Arg Phe Leu Tyr
 65 70 75 80
 Thr Gly Ser Gln Ile Gly Ser Gln Ser His Arg Lys Glu Thr Lys Lys
 85 90 95
 Val Ile Gly Gln Leu Leu Leu His Thr Val Lys His Gly Glu Lys Gly
 100 105 110
 Ile Asp Val Asp Ala Glu Asn Cys Ala Val Cys Ile Glu Asn Phe Lys
 115 120 125
 Val Lys Asp Ile Ile Arg Ile Leu Pro Cys Lys His Ile Phe His Arg
 130 135 140
 Ile Cys Ile Asp Pro Trp Leu Leu Asp His Arg Thr Cys Pro Met Cys
 145 150 155 160
 Lys Leu Asp Val Ile Lys Ala Leu Gly Tyr Trp Gly Glu Pro Gly Asp
 165 170 175
 Val Gln Glu Met Pro Ala Pro Glu Ser Pro Pro Gly Arg Asp Pro Ala
 180 185 190
 Ala Asn Leu Ser Leu Ala Leu Pro Asp Asp Asp Gly Ser Asp Glu Ser
 195 200 205
 Ser Pro Pro Ser Ala Ser Pro Ala Glu Ser Glu Pro Gln Cys Asp Pro
 210 215 220
 Ser Phe Lys Gly Asp Ala Gly Glu Asn Thr Ala Leu Leu Glu Ala Gly
 225 230 235 240
 Arg Ser Asp Ser Arg His Gly Gly Pro Ile Ser
 245 250 251

<210> 1037
 <211> 789
 <212> PRT
 <213> Homo sapiens

<400> 1037

Met	Thr	Ile	His	Gln	Phe	Leu	Leu	Leu	Phe	Leu	Phe	Trp	Val	Cys	Leu
1				5					10					15	
Pro	His	Phe	Cys	Ser	Pro	Glu	Ile	Met	Phe	Arg	Arg	Thr	Pro	Val	Pro
			20					25					30		
Gln	Gln	Arg	Ile	Leu	Ser	Ser	Arg	Val	Pro	Arg	Ser	Asp	Gly	Lys	Ile
		35					40					45			
Leu	His	Arg	Gln	Lys	Arg	Gly	Trp	Met	Trp	Asn	Gln	Phe	Phe	Leu	Leu
	50					55					60				
Glu	Glu	Tyr	Thr	Gly	Ser	Asp	Tyr	Gln	Tyr	Val	Gly	Lys	Leu	His	Ser
65					70					75				80	
Asp	Gln	Asp	Lys	Gly	Asp	Gly	Ser	Leu	Lys	Tyr	Ile	Leu	Ser	Gly	Asp
				85					90					95	
Gly	Ala	Gly	Thr	Leu	Phe	Ile	Ile	Asp	Glu	Lys	Thr	Gly	Asp	Ile	His
			100					105					110		
Ala	Thr	Arg	Arg	Ile	Asp	Arg	Glu	Glu	Lys	Ala	Phe	Tyr	Thr	Leu	Arg
	115						120					125			
Ala	Gln	Ala	Ile	Asn	Arg	Arg	Thr	Leu	Arg	Pro	Val	Glu	Pro	Glu	Ser
	130					135					140				
Glu	Phe	Val	Ile	Lys	Ile	His	Asp	Ile	Asn	Asp	Asn	Glu	Pro	Thr	Phe
145					150					155					160
Pro	Glu	Glu	Ile	Tyr	Thr	Ala	Ser	Val	Pro	Glu	Met	Ser	Val	Val	Gly
				165					170					175	
Thr	Ser	Val	Val	Gln	Val	Thr	Ala	Thr	Asp	Ala	Asp	Asp	Pro	Ser	Tyr
			180					185					190		
Gly	Asn	Ser	Ala	Arg	Val	Ile	Tyr	Ser	Ile	Leu	Gln	Gly	Gln	Pro	Tyr
	195					200					205				
Phe	Ser	Val	Glu	Pro	Glu	Thr	Gly	Ile	Ile	Arg	Thr	Ala	Leu	Pro	Asn
	210					215					220				
Met	Asn	Arg	Glu	Asn	Arg	Glu	Gln	Tyr	Gln	Val	Val	Ile	Gln	Ala	Lys
225					230					235					240
Asp	Met	Gly	Gly	Gln	Met	Gly	Gly	Leu	Ser	Gly	Thr	Thr	Thr	Val	Asn
				245				250						255	
Ile	Thr	Leu	Thr	Asp	Val	Asn	Asp	Asn	Pro	Pro	Arg	Phe	Pro	Gln	Asn
			260					265					270		
Thr	Ile	His	Leu	Arg	Val	Leu	Glu	Ser	Ser	Pro	Val	Gly	Thr	Ala	Ile
	275						280					285			
Gly	Ser	Val	Lys	Ala	Thr	Asp	Ala	Asp	Thr	Gly	Lys	Asn	Ala	Glu	Val
	290					295					300				
Glu	Tyr	Arg	Ile	Ile	Asp	Gly	Asp	Gly	Thr	Asp	Met	Phe	Asp	Ile	Val
305					310					315					320
Thr	Glu	Lys	Asp	Thr	Gln	Glu	Gly	Ile	Ile	Thr	Val	Lys	Lys	Pro	Leu
				325				330						335	
Asp	Tyr	Glu	Ser	Arg	Arg	Leu	Tyr	Thr	Leu	Lys	Val	Glu	Ala	Glu	Asn
			340					345					350		
Thr	His	Val	Asp	Pro	Arg	Phe	Tyr	Tyr	Leu	Gly	Pro	Phe	Lys	Asp	Thr
	355						360					365			
Thr	Ile	Val	Lys	Ile	Ser	Ile	Glu	Asp	Val	Asp	Glu	Pro	Pro	Val	Phe
	370					375					380				
Ser	Arg	Ser	Ser	Tyr	Leu	Phe	Glu	Val	His	Glu	Asp	Ile	Glu	Val	Gly
385					390					395					400
Thr	Ile	Ile	Gly	Thr	Val	Met	Ala	Arg	Asp	Pro	Asp	Ser	Ile	Ser	Ser
			405					410						415	
Pro	Ile	Arg	Phe	Ser	Leu	Asp	Arg	His	Thr	Asp	Leu	Asp	Arg	Ile	Phe
			420					425					430		
Asn	Ile	His	Ser	Gly	Asn	Gly	Ser	Leu	Tyr	Thr	Ser	Lys	Pro	Leu	Asp
	435					440						445			
Arg	Glu	Leu	Ser	Gln	Trp	His	Asn	Leu	Thr	Val	Ile	Ala	Ala	Glu	Ile
	450					455					460				
Asn	Asn	Pro	Lys	Glu	Thr	Thr	Arg	Val	Ala	Val	Phe	Val	Arg	Ile	Leu
465					470					475					480
Asp	Val	Asn	Asp	Asn	Ala	Pro	Gln	Phe	Ala	Val	Phe	Tyr	Asp	Thr	Phe
				485				490						495	
Val	Cys	Glu	Asn	Ala	Arg	Pro	Gly	Gln	Leu	Ile	Gln	Thr	Ile	Ser	Ala
			500					505					510		

Val Asp Lys Asp Asp Pro Leu Gly Gly Gln Lys Phe Phe Phe Ser Leu
 515 520 525
 Ala Ala Val Asn Pro Asn Phe Thr Val Gln Asp Asn Glu Asp Asn Thr
 530 535 540
 Ala Arg Ile Leu Thr Arg Lys Asn Gly Phe Asn Arg His Glu Ile Ser
 545 550 555 560
 Thr Tyr Leu Leu Pro Val Val Ile Ser Asp Asn Asp Tyr Pro Ile Gln
 565 570 575
 Ser Ser Thr Gly Thr Leu Thr Ile Arg Val Cys Ala Cys Asp Ser Gln
 580 585 590
 Gly Asn Met Gln Ser Cys Ser Ala Glu Ala Leu Leu Leu Pro Ala Gly
 595 600 605
 Leu Ser Thr Gly Ala Leu Ile Ala Ile Leu Leu Cys Ile Ile Ile Leu
 610 615 620
 Leu Val Ile Val Val Leu Phe Ala Ala Leu Lys Arg Gln Arg Lys Lys
 625 630 635 640
 Glu Pro Leu Ile Leu Ser Lys Glu Asp Ile Arg Asp Asn Ile Val Ser
 645 650 655
 Tyr Asn Asp Glu Gly Gly Gly Glu Glu Asp Thr Gln Ala Phe Asp Ile
 660 665 670
 Gly Thr Leu Arg Asn Pro Ala Ala Ile Glu Glu Lys Lys Leu Arg Arg
 675 680 685
 Asp Ile Ile Pro Glu Thr Leu Phe Ile Pro Arg Arg Thr Pro Thr Ala
 690 695 700
 Pro Asp Asn Thr Asp Val Arg Asp Phe Ile Asn Glu Arg Leu Lys Glu
 705 710 715 720
 His Asp Leu Asp Pro Thr Ala Pro Pro Tyr Asp Ser Leu Ala Thr Tyr
 725 730 735
 Ala Tyr Glu Gly Asn Asp Ser Ile Ala Glu Ser Leu Ser Ser Leu Glu
 740 745 750
 Ser Gly Thr Thr Glu Gly Asp Gln Asn Tyr Asp Tyr Leu Arg Glu Trp
 755 760 765
 Gly Pro Arg Phe Asn Lys Leu Ala Glu Met Tyr Gly Gly Gly Glu Ser
 770 775 780
 Asp Lys Asp Ser *
 785 788

<210> 1038
 <211> 172
 <212> PRT
 <213> Homo sapiens

<400> 1038
 Met Ser Leu Cys Glu Trp Thr Leu Pro Leu Pro Thr Arg Val Ser Leu
 1 5 10 15
 Ser Ser His Pro Ser His Gln Ser His Ser His Leu Leu Val Trp Leu
 20 25 30
 Phe Gly Glu Cys Arg Pro Gly Gln Gly His Arg Leu Gly His Glu Ser
 35 40 45
 Ser Ala Tyr Cys Pro Gly Gln Met Gln Ile Pro Cys His Gly Ile Pro
 50 55 60
 Gln Lys Val Leu Phe Phe Arg Trp Gly Lys Ser Val Gly Ile Met Leu
 65 70 75 80
 Thr Glu Leu Glu Lys Ala Leu Asn Ser Ile Ile Asp Val Tyr His Lys
 85 90 95
 Tyr Ser Leu Ile Lys Gly Asn Phe His Ala Val Tyr Arg Asp Asp Leu
 100 105 110
 Lys Lys Leu Leu Glu Thr Glu Cys Pro Gln Tyr Ile Arg Lys Lys Gly
 115 120 125
 Ala Asp Val Trp Phe Lys Glu Leu Asp Ile Asn Thr Asp Gly Ala Val
 130 135 140

Asn	Phe	Gln	Glu	Phe	Leu	Ile	Leu	Val	Ile	Lys	Met	Gly	Val	Ala	Ala
145					150					155					160
His	Lys	Lys	Ser	His	Glu	Glu	Ser	His	Lys	Glu	*				
				165					170	171					

<210> 1039

<211> 418

<212> PRT

<213> Homo sapiens

<400> 1039

Met	Tyr	Glu	Gly	Ile	Arg	Cys	Leu	Leu	Lys	Ala	Leu	Leu	Gly	Phe	Val
1				5					10					15	
Ser	Leu	Ala	Ile	Gly	Thr	Leu	Tyr	Cys	Pro	Arg	Gln	Tyr	Arg	Pro	Phe
			20					25					30		
Pro	Gly	Ser	Leu	Gly	Ile	Glu	Ala	Ile	Asn	Val	Pro	Glu	Pro	Ile	Pro
		35					40					45			
Asp	Ser	Tyr	Tyr	Arg	Asp	Met	Ala	Thr	Trp	Pro	Thr	His	Ala	Pro	Ser
	50					55					60				
Val	Glu	Glu	Gly	Gly	Gln	Gly	Arg	Phe	Gly	Asn	Gln	Ala	Asp	His	Phe
	65				70					75					80
Leu	Gly	Ser	Leu	Ala	Phe	Ala	Lys	Leu	Leu	Asn	Arg	Thr	Leu	Ala	Val
				85					90					95	
Pro	Pro	Trp	Ile	Glu	Tyr	Gln	His	His	Lys	Pro	Pro	Phe	Thr	Asn	Leu
			100					105					110		
His	Val	Ser	Tyr	Gln	Lys	Tyr	Phe	Lys	Leu	Glu	Pro	Leu	Gln	Ala	Tyr
		115					120					125			
His	Arg	Val	Ile	Ser	Leu	Glu	Asp	Phe	Met	Glu	Lys	Leu	Ala	Pro	Thr
	130					135					140				
His	Trp	Pro	Pro	Glu	Lys	Arg	Val	Ala	Tyr	Cys	Phe	Glu	Val	Ala	Ala
	145				150					155					160
Gln	Arg	Ser	Pro	Asp	Lys	Lys	Thr	Cys	Pro	Met	Lys	Glu	Gly	Asn	Pro
				165					170					175	
Phe	Gly	Pro	Phe	Trp	Asp	Gln	Phe	His	Val	Ser	Phe	Asn	Lys	Ser	Glu
			180				185					190			
Leu	Phe	Thr	Gly	Ile	Ser	Phe	Ser	Ala	Ser	Tyr	Arg	Glu	Gln	Trp	Ser
		195					200					205			
Gln	Arg	Phe	Ser	Pro	Lys	Glu	His	Pro	Val	Leu	Ala	Leu	Pro	Gly	Ala
	210					215					220				
Pro	Ala	Gln	Phe	Pro	Val	Leu	Glu	Glu	His	Arg	Pro	Leu	Gln	Lys	Tyr
	225				230					235					240
Met	Val	Trp	Ser	Asp	Glu	Met	Val	Lys	Thr	Gly	Glu	Ala	Gln	Ile	His
				245					250					255	
Ala	His	Leu	Val	Arg	Pro	Tyr	Val	Gly	Ile	His	Leu	Arg	Ile	Gly	Ser
			260					265					270		
Asp	Trp	Lys	Asn	Ala	Cys	Ala	Met	Leu	Lys	Asp	Gly	Thr	Ala	Gly	Ser
		275					280					285			
His	Phe	Met	Ala	Ser	Pro	Gln	Cys	Val	Gly	Tyr	Ser	Arg	Ser	Thr	Ala
	290					295					300				
Ala	Pro	Leu	Thr	Met	Thr	Met	Cys	Leu	Pro	Asp	Leu	Lys	Glu	Ile	Gln
	305				310					315					320
Arg	Ala	Val	Lys	Leu	Trp	Val	Arg	Ser	Leu	Asp	Ala	Gln	Ser	Val	Tyr
			325						330					335	
Val	Ala	Thr	Asp	Ser	Glu	Ser	Tyr	Val	Pro	Glu	Leu	Gln	Gln	Leu	Phe
			340					345				350			
Lys	Gly	Lys	Val	Lys	Val	Val	Ser	Leu	Lys	Pro	Glu	Val	Ala	Gln	Val
		355					360					365			
Asp	Leu	Tyr	Ile	Leu	Gly	Gln	Ala	Asp	His	Phe	Ile	Gly	Asn	Cys	Val
	370					375					380				
Ser	Ser	Phe	Thr	Ala	Phe	Val	Lys	Arg	Glu	Arg	Asp	Leu	Gln	Gly	Arg
	385				390					395					400

Pro Ser Ser Phe Phe Gly Met Asp Arg Pro Pro Lys Leu Arg Asp Glu
 405 410 415
 Phe *
 417

<210> 1040
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 1040
 Met Ala Gly Glu Ser Phe Met Ala Thr Ala Pro Phe Val Gln Ile Gly
 1 5 10 15
 Arg Phe Phe Leu Ser Ser Gly Leu Ile Asp Lys Val Asp Asn Phe Lys
 20 25 30
 Ser Leu Ser Leu Ser Lys Leu Glu Asp Pro His Val Asp Ile Ile Arg
 35 40 45
 Arg Gly Asp Phe Phe Tyr His Ser Glu Asn Pro Lys Tyr Pro Glu Val
 50 55 60
 Gly Asp Leu Arg Val Ser Phe Ser Tyr Ala Gly Leu Ser Gly Asp Asp
 65 70 75 80
 Pro Asp Leu Gly Pro Ala His Val Val Thr Val Ile Ala Arg Gln Arg
 85 90 95
 Gly Asp Gln Leu Val Pro Phe Ser Thr Lys Ser Gly Asp Thr Leu Leu
 100 105 110
 Leu Leu His His Gly Asp Phe Ser Ala Glu Glu Val Phe His Arg Glu
 115 120 125
 Leu Arg Ser Asn Ser Met Lys Thr Trp Gly Leu Arg Ala Ala Gly Trp
 130 135 140
 Met Ala Met Phe Met Gly Leu Asn Leu Met Thr Arg Ile Leu Tyr Thr
 145 150 155 160
 Leu Val Asp Trp Phe Pro Val Phe Arg Asp Leu Val Asn Ile Gly Leu
 165 170 175
 Lys Ala Phe Ala Phe Cys Val Ala Thr Ser Leu Thr Leu Leu Thr Val
 180 185 190
 Ala Ala Gly Trp Leu Phe Tyr Arg Pro Leu Trp Ala Leu Leu Ile Ala
 195 200 205
 Gly Leu Ala Leu Val Pro Ile Leu Val Ala Arg Thr Arg Val Pro Ala
 210 215 220
 Lys Lys Leu Glu
 225 228

<210> 1041
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 1041
 Met Thr Ala Gln Gly Gly Leu Val Ala Asn Arg Gly Arg Arg Phe Lys
 1 5 10 15
 Trp Ala Ile Glu Leu Ser Gly Pro Gly Gly Gly Ser Arg Gly Arg Ser
 20 25 30
 Asp Arg Gly Ser Gly Gln Gly Asp Ser Leu Tyr Pro Val Gly Tyr Leu
 35 40 45
 Asp Lys Gln Val Pro Asp Thr Ser Val Gln Glu Thr Asp Arg Ile Leu
 50 55 60
 Val Glu Lys Arg Cys Trp Asp Ile Ala Leu Gly Pro Leu Lys Gln Ile
 65 70 75 80

Pro Met Asn Leu Phe Ile Met Tyr Met Ala Gly Asn Thr Ile Ser Ile
 85 90 95
 Phe Pro Thr Met Met Val Cys Met Met Ala Trp Arg Pro Ile Gln Ala
 100 105 110
 Leu Met Ala Ile Ser Ala Thr Phe Lys Met Leu Glu Ser Ser Ser Gln
 115 120 125
 Lys Phe Leu Gln Gly Leu Val Tyr Leu Ile Gly Asn Leu Met Gly Leu
 130 135 140
 Ala Leu Ala Val Tyr Lys Cys Gln Ser Met Gly Leu Leu Pro Thr His
 145 150 155 160
 Ala Ser Asp Trp Leu Ala Phe Ile Glu Pro Pro Glu Arg Met Glu Phe
 165 170 175
 Ser Gly Gly Gly Leu Leu Leu
 180 183

<210> 1042
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 1042
 Met Ala Ser Ser Asn Thr Val Leu Met Arg Leu Val Ala Ser Ala Tyr
 1 5 10 15
 Ser Ile Ala Gln Lys Ala Gly Met Ile Val Arg Arg Val Ile Ala Glu
 20 25 30
 Gly Asp Leu Gly Ile Val Glu Lys Thr Cys Ala Thr Asp Leu Gln Thr
 35 40 45
 Lys Ala Asp Arg Leu Ala Gln Met Ser Ile Cys Ser Ser Leu Ala Arg
 50 55 60
 Lys Phe Pro Lys Leu Thr Ile Ile Gly Glu Glu Asp Leu Pro Ser Glu
 65 70 75 80
 Glu Val Asp Gln Glu Leu Ile Glu Asp Ser Gln Trp Glu Glu Ile Leu
 85 90 95
 Lys Gln Pro Cys Pro Ser Gln Tyr Ser Ala Ile Lys Glu Glu Asp Leu
 100 105 110
 Val Val Trp Val Asp Pro Leu Asp Gly Thr Lys Glu Tyr Thr Glu Gly
 115 120 125
 Leu Leu Asp Asn Val Thr Val Leu Ile Gly Ile Ala Tyr Glu Gly Lys
 130 135 140
 Ala Ile Ala Gly Val Ile Asn Gln Pro Tyr Tyr Asn Tyr Glu Ala Gly
 145 150 155 160
 Pro Asp Ala Val Leu Gly Arg Thr Ile Trp Gly Val Leu Gly Leu Gly
 165 170 175
 Ala Phe Gly Phe Gln Leu Lys Glu Val Pro Ala Gly Lys His Ile Ile
 180 185 190
 Thr Thr Thr Arg Ser His Ser Asn Lys Leu Val Thr Asp Cys Val Ala
 195 200 205
 Ala Met Asn Pro Asp Ala Val Leu Arg Val Gly Gly Ala Gly Asn Lys
 210 215 220
 Ile Ile Gln Leu Ile Glu Gly Lys Ala Ser Ala Tyr Val Phe Ala Ser
 225 230 235 240
 Pro Gly Cys Lys Lys Trp Asp Thr Cys Ala Pro Glu Val Ile Leu His
 245 250 255
 Ala Val Gly Gly Lys Leu Thr Asp Ile His Gly Asn Val Leu Gln Tyr
 260 265 270
 His Lys Asp Val Lys His Met Asn Ser Ala Gly Val Leu Ala Thr Leu
 275 280 285
 Arg Asn Tyr Asp Tyr Tyr Ala Ser Arg Val Pro Glu Ser Ile Lys Asn
 290 295 300
 Ala Leu Val Pro *
 305 308

<210> 1043
 <211> 382
 <212> PRT
 <213> Homo sapiens

<400> 1043
 Met Arg Ser His Thr Ile Thr Met Thr Thr Thr Ser Val Ser Ser Trp
 1 5 10 15
 Pro Tyr Ser Ser His Arg Met Arg Phe Ile Thr Asn His Ser Asp Gln
 20 25 30
 Pro Pro Gln Asn Phe Ser Ala Thr Pro Asn Val Thr Thr Cys Pro Met
 35 40 45
 Asp Glu Lys Leu Leu Ser Thr Val Leu Thr Thr Ser Tyr Ser Val Ile
 50 55 60
 Phe Ile Val Gly Leu Val Gly Asn Ile Ile Ala Leu Tyr Val Phe Leu
 65 70 75 80
 Gly Ile His Arg Lys Arg Asn Ser Ile Gln Ile Tyr Leu Leu Asn Val
 85 90 95
 Ala Ile Ala Asp Leu Leu Leu Ile Phe Cys Leu Pro Phe Arg Ile Met
 100 105 110
 Tyr His Ile Asn Gln Asn Lys Trp Thr Leu Gly Val Ile Leu Cys Lys
 115 120 125
 Val Val Gly Thr Leu Phe Tyr Met Asn Met Tyr Ile Ser Ile Ile Leu
 130 135 140
 Leu Gly Phe Ile Ser Leu Asp Arg Tyr Ile Lys Ile Asn Arg Ser Ile
 145 150 155 160
 Gln Gln Arg Lys Ala Ile Thr Thr Lys Gln Ser Ile Tyr Val Cys Cys
 165 170 175
 Ile Val Trp Met Leu Ala Leu Gly Gly Phe Leu Thr Met Ile Ile Leu
 180 185 190
 Thr Leu Lys Lys Gly Gly His Asn Ser Thr Met Cys Phe His Tyr Arg
 195 200 205
 Asp Lys His Asn Ala Lys Gly Glu Ala Ile Phe Asn Phe Ile Leu Val
 210 215 220
 Val Met Phe Trp Leu Ile Phe Leu Leu Ile Ile Leu Ser Tyr Ile Lys
 225 230 235 240
 Ile Gly Lys Asn Leu Leu Arg Ile Ser Lys Arg Arg Ser Lys Phe Pro
 245 250 255
 Asn Ser Gly Lys Tyr Ala Thr Thr Ala Arg Asn Ser Phe Ile Val Leu
 260 265 270
 Ile Ile Phe Thr Ile Cys Phe Val Pro Tyr His Ala Phe Arg Phe Ile
 275 280 285
 Tyr Ile Ser Ser Gln Leu Asn Val Ser Ser Cys Tyr Trp Lys Glu Ile
 290 295 300
 Val His Lys Thr Asn Glu Ile Met Leu Val Leu Ser Ser Phe Asn Ser
 305 310 315 320
 Cys Leu Asp Pro Val Met Tyr Phe Leu Met Ser Ser Asn Ile Arg Lys
 325 330 335
 Ile Met Cys Gln Leu Leu Phe Arg Arg Phe Gln Gly Glu Pro Ser Arg
 340 345 350
 Ser Glu Ser Thr Ser Glu Phe Lys Pro Gly Tyr Ser Leu His Asp Thr
 355 360 365
 Ser Val Ala Val Lys Ile Gln Ser Ser Ser Lys Ser Thr *
 370 375 380 381

<210> 1044
 <211> 353
 <212> PRT

<213> Homo sapiens

<400> 1044

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Met Arg Ser Leu Gly Ala Leu Leu Leu Leu Leu Ser Ala Cys Leu Ala
 1          5          10          15
Val Ser Ala Gly Pro Val Pro Thr Pro Pro Asp Asn Ile Gln Val Gln
          20          25          30
Glu Asn Phe Asn Ile Ser Arg Ile Tyr Gly Lys Trp Tyr Asn Leu Ala
          35          40          45
Ile Gly Ser Thr Cys Pro Trp Leu Lys Lys Ile Met Asp Arg Met Thr
          50          55          60
Val Ser Thr Leu Val Leu Gly Glu Gly Ala Thr Glu Ala Glu Ile Ser
          65          70          75          80
Met Thr Ser Thr Arg Trp Arg Lys Gly Val Cys Glu Glu Thr Ser Gly
          85          90          95
Ala Tyr Glu Lys Thr Asp Thr Asp Gly Lys Phe Leu Tyr His Lys Ser
          100          105          110
Lys Trp Asn Ile Thr Met Glu Ser Tyr Val Val His Thr Asn Tyr Asp
          115          120          125
Glu Tyr Ala Ile Phe Leu Thr Lys Lys Phe Ser Arg His His Gly Pro
          130          135          140
Thr Ile Thr Ala Lys Leu Tyr Gly Arg Ala Pro Gln Leu Arg Glu Thr
          145          150          155          160
Leu Leu Gln Asp Phe Arg Val Val Ala Gln Gly Val Gly Ile Pro Glu
          165          170          175
Asp Ser Ile Phe Thr Met Ala Asp Arg Gly Glu Cys Val Pro Gly Glu
          180          185          190
Gln Glu Pro Glu Pro Ile Leu Ile Pro Arg Val Arg Arg Ala Val Leu
          195          200          205
Pro Gln Glu Glu Glu Gly Ser Gly Gly Gly Gln Leu Val Thr Glu Val
          210          215          220
Thr Lys Lys Glu Asp Ser Cys Gln Leu Gly Tyr Ser Ala Gly Pro Cys
          225          230          235          240
Met Gly Met Thr Ser Arg Tyr Phe Tyr Asn Gly Thr Ser Met Ala Cys
          245          250          255
Glu Thr Phe Gln Tyr Gly Gly Cys Met Gly Asn Gly Asn Asn Phe Val
          260          265          270
Thr Glu Lys Glu Cys Leu Gln Thr Cys Arg Thr Val Ala Ala Cys Asn
          275          280          285
Leu Pro Ile Val Arg Gly Pro Cys Arg Ala Phe Ile Gln Leu Trp Ala
          290          295          300
Phe Asp Ala Val Lys Gly Lys Cys Val Leu Phe Pro Tyr Gly Gly Cys
          305          310          315          320
Gln Gly Asn Gly Asn Lys Phe Tyr Ser Glu Lys Glu Cys Arg Glu Tyr
          325          330          335
Cys Gly Val Pro Gly Asp Gly Asp Glu Glu Leu Leu Arg Phe Ser Asn
          340          345          350          352

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<210> 1045

<211> 102

<212> PRT

<213> Homo sapiens

<400> 1045

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Met Ala Leu Leu Lys Ala Asn Lys Asp Leu Ile Ser Ala Gly Leu Lys
 1          5          10          15
Glu Phe Ser Val Leu Leu Asn Gln Gln Val Phe Asn Asp Pro Leu Val
          20          25          30

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Ser Glu Glu Asp Met Val Thr Val Val Glu Asp Trp Met Asn Phe Tyr
 35 40 45
 Ile Asn Tyr Tyr Arg Gln Gln Val Thr Gly Glu Pro Gln Glu Arg Asp
 50 55 60
 Lys Ala Leu Gln Glu Leu Arg Gln Glu Leu Asn Thr Leu Ala Asn Pro
 65 70 75 80
 Phe Leu Ala Lys Tyr Arg Asp Phe Leu Lys Ser His Glu Leu Pro Ser
 85 90 95
 His Pro Pro Pro Ser Ser
 100 102

<210> 1046
 <211> 114
 <212> PRT
 <213> Homo sapiens

 <400> 1046
 Met Ser Ala Ser Val Val Ser Val Ile Ser Arg Phe Leu Glu Glu Tyr
 1 5 10 15
 Leu Ser Ser Thr Pro Gln Arg Leu Lys Leu Leu Asp Ala Tyr Leu Leu
 20 25 30
 Tyr Ile Leu Leu Thr Gly Ala Leu Gln Phe Gly Tyr Cys Leu Leu Val
 35 40 45
 Gly Thr Phe Pro Phe Asn Ser Phe Leu Ser Gly Phe Ile Ser Cys Val
 50 55 60
 Gly Ser Phe Ile Leu Ala Val Cys Leu Arg Ile Gln Ile Asn Pro Gln
 65 70 75 80
 Asn Lys Ala Asp Phe Gln Gly Ile Ser Pro Glu Arg Ala Phe Ala Asp
 85 90 95
 Phe Leu Phe Ala Ser Thr Ile Leu His Leu Val Val Met Asn Phe Val
 100 105 110
 Gly *
 113

<210> 1047
 <211> 310
 <212> PRT
 <213> Homo sapiens

 <400> 1047
 Met Asp Pro Thr Thr Ala Ala Leu Glu Lys Glu His Glu Ala Ile Thr
 1 5 10 15
 Lys Val Lys Tyr Val Asp Lys Ile His Ile Gly Asn Tyr Glu Ile Asp
 20 25 30
 Ala Trp Tyr Phe Ser Pro Phe Pro Glu Asp Tyr Gly Lys Gln Pro Lys
 35 40 45
 Leu Trp Leu Cys Glu Tyr Cys Leu Lys Tyr Met Lys Tyr Glu Lys Ser
 50 55 60
 Tyr Arg Phe His Leu Gly Gln Cys Gln Trp Arg Gln Pro Pro Gly Lys
 65 70 75 80
 Glu Ile Tyr Arg Lys Ser Asn Ile Ser Val Tyr Glu Val Asp Gly Lys
 85 90 95
 Asp His Lys Ile Tyr Cys Gln Asn Leu Cys Leu Leu Ala Lys Leu Phe
 100 105 110
 Leu Asp His Lys Thr Leu Tyr Phe Asp Val Glu Pro Phe Val Phe Tyr
 115 120 125
 Ile Leu Thr Glu Val Asp Arg Gln Gly Ala His Ile Val Gly Tyr Phe
 130 135 140

Ser Lys Glu Lys Glu Ser Pro Asp Gly Asn Asn Val Ala Cys Ile Leu
 145 150 155 160
 Thr Leu Pro Pro Tyr Gln Arg Arg Gly Tyr Gly Lys Phe Leu Ile Ala
 165 170 175
 Phe Ser Tyr Glu Leu Ser Lys Leu Glu Ser Thr Val Gly Ser Pro Glu
 180 185 190
 Lys Pro Leu Ser Asp Leu Gly Lys Leu Ser Tyr Arg Ser Tyr Trp Ser
 195 200 205
 Trp Val Leu Leu Glu Ile Leu Arg Asp Phe Arg Gly Thr Leu Ser Ile
 210 215 220
 Lys Asp Leu Ser Gln Met Thr Ser Ile Thr Gln Asn Asp Ile Ile Ser
 225 230 235 240
 Thr Leu Gln Ser Leu Asn Met Val Lys Tyr Trp Lys Gly Gln His Val
 245 250 255
 Ile Cys Val Thr Pro Lys Leu Val Glu Glu His Leu Lys Ser Ala Gln
 260 265 270
 Tyr Lys Lys Pro Pro Ile Thr Gly Gly Trp Gly Ala Ala Val Cys Arg
 275 280 285
 Gly Arg Trp Gly Ser Val Ser Ile Trp Thr Gly Arg Ser Gln Gly Leu
 290 295 300
 Leu Ile Ala Val Thr *
 305 309

<210> 1048
 <211> 300
 <212> PRT
 <213> Homo sapiens

<400> 1048
 Met Asp Pro Thr Thr Ala Ala Leu Glu Lys Glu His Glu Ala Ile Thr
 1 5 10 15
 Lys Val Lys Tyr Val Asp Lys Ile His Ile Gly Asn Tyr Glu Ile Asp
 20 25 30
 Ala Trp Tyr Phe Ser Pro Phe Pro Glu Asp Tyr Gly Lys Gln Pro Lys
 35 40 45
 Leu Trp Leu Cys Glu Tyr Cys Leu Lys Tyr Met Lys Tyr Glu Lys Ser
 50 55 60
 Tyr Arg Phe His Leu Gly Gln Cys Gln Trp Arg Gln Pro Pro Gly Lys
 65 70 75 80
 Glu Ile Tyr Arg Lys Ser Asn Ile Ser Val Tyr Glu Val Asp Gly Lys
 85 90 95
 Asp His Lys Ile Tyr Cys Gln Asn Leu Cys Leu Leu Ala Lys Leu Phe
 100 105 110
 Leu Asp His Lys Thr Leu Tyr Phe Asp Val Glu Pro Phe Val Phe Tyr
 115 120 125
 Ile Leu Thr Glu Val Asp Arg Gln Gly Ala His Ile Val Gly Tyr Phe
 130 135 140
 Ser Lys Glu Lys Glu Ser Pro Asp Gly Asn Asn Val Ala Cys Ile Leu
 145 150 155 160
 Thr Leu Pro Pro Tyr Gln Arg Arg Gly Tyr Gly Lys Phe Leu Ile Ala
 165 170 175
 Phe Ser Tyr Glu Leu Ser Lys Leu Glu Ser Thr Val Gly Ser Pro Glu
 180 185 190
 Lys Pro Leu Ser Asp Leu Gly Lys Leu Ser Tyr Arg Ser Tyr Trp Ser
 195 200 205
 Trp Val Leu Leu Glu Ile Leu Arg Val Ser Gln Met Thr Ser Ile Thr
 210 215 220
 Gln Asn Asp Ile Ile Ser Thr Leu Gln Ser Leu Asn Met Val Lys Tyr
 225 230 235 240
 Trp Lys Gly Gln His Val Ile Cys Val Thr Pro Lys Leu Val Glu Glu
 245 250 255

His Leu Lys Ser Ala Gln Tyr Lys Lys Pro Pro Ile Thr Gly Gly Trp
 260 265 270
 Gly Ala Ala Val Cys Arg Gly Arg Trp Gly Ser Val Ser Ile Trp Thr
 275 280 285
 Gly Arg Ser Gln Gly Leu Leu Ile Ala Val Thr *
 290 295 299

<210> 1049
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 1049
 Met Asp Glu Asp Val Leu Thr Thr Leu Lys Ile Leu Ile Ile Gly Glu
 1 5 10 15
 Ser Gly Val Gly Lys Ser Ser Leu Leu Leu Arg Phe Thr Asp Asp Thr
 20 25 30
 Phe Asp Pro Glu Leu Ala Ala Thr Ile Gly Val Asp Phe Lys Val Lys
 35 40 45
 Thr Ile Ser Val Asp Gly Asn Lys Ala Lys Leu Ala Ile Trp Asp Thr
 50 55 60
 Ala Gly Gln Glu Arg Phe Arg Thr Leu Thr Pro Ser Tyr Tyr Arg Gly
 65 70 75 80
 Ala Gln Gly Val Ile Leu Val Tyr Asp Val Thr Arg Arg Asp Thr Phe
 85 90 95
 Val Lys Leu Asp Asn Trp Leu Asn Glu Leu Glu Thr Tyr Cys Thr Arg
 100 105 110
 Asn Asp Ile Val Asn Met Leu Val Gly Asn Lys Ile Asp Lys Glu Asn
 115 120 125
 Arg Glu Val Asp Arg Asn Glu Gly Leu Lys Phe Ala Arg Lys His Ser
 130 135 140
 Met Leu Phe Ile Glu Ala Ser Ala Lys Thr Cys Asp Gly Val Gln Cys
 145 150 155 160
 Ala Phe Glu Glu Leu Val Glu Lys Ile Ile Gln Thr Pro Gly Leu Trp
 165 170 175
 Glu Ser Glu Asn Gln Asn Lys Gly Val Lys Leu Ser His Arg Glu Glu
 180 185 190
 Gly Gln Gly Gly Gly Ala Cys Gly Gly Tyr Cys Ser Val Leu *
 195 200 205 206

<210> 1050
 <211> 67
 <212> PRT
 <213> Homo sapiens

<400> 1050
 Met Val Lys Leu Ser Ile Val Leu Thr Pro Gln Phe Leu Ser His Asp
 1 5 10 15
 Gln Gly Gln Leu Thr Lys Glu Leu Gln His Val Lys Ser Val Thr
 20 25 30
 Cys Pro Cys Glu Tyr Leu Arg Lys Val Ser Glu Cys Arg Gln Met Gly
 35 40 45
 Pro Gly Ala Leu Glu Gln Phe Pro Gly Leu Ser Cys His Thr Ser His
 50 55 60
 Ser Gly *
 65 66

<210> 1051
 <211> 195
 <212> PRT
 <213> Homo sapiens

<400> 1051
 Met Ala Ala Ser Leu Val Gly Lys Lys Ile Val Phe Val Thr Gly Asn
 1 5 10 15
 Ala Lys Lys Leu Glu Glu Val Val Gln Ile Leu Gly Asp Lys Phe Pro
 20 25 30
 Cys Thr Leu Val Ala Gln Lys Ile Asp Leu Pro Glu Tyr Gln Gly Glu
 35 40 45
 Pro Asp Glu Ile Ser Ile Gln Lys Cys Gln Glu Ala Val Arg Gln Val
 50 55 60
 Gln Gly Pro Val Leu Val Glu Asp Thr Cys Leu Cys Phe Asn Ala Leu
 65 70 75 80
 Gly Gly Leu Pro Gly Pro Tyr Ile Lys Trp Phe Leu Glu Lys Leu Lys
 85 90 95
 Pro Glu Gly Leu His Gln Leu Leu Ala Gly Phe Glu Asp Lys Ser Ala
 100 105 110
 Tyr Ala Leu Cys Thr Phe Ala Leu Ser Thr Gly Asp Pro Ser Gln Pro
 115 120 125
 Val Arg Leu Phe Arg Gly Arg Thr Ser Gly Arg Ile Val Ala Pro Arg
 130 135 140
 Gly Cys Gln Asp Phe Gly Trp Asp Pro Cys Phe Gln Pro Asp Gly Tyr
 145 150 155 160
 Glu Gln Thr Tyr Ala Glu Met Pro Lys Ala Glu Lys Asn Ala Val Ser
 165 170 175
 His Arg Phe Arg Ala Leu Leu Glu Leu Gln Glu Tyr Phe Gly Ser Leu
 180 185 190
 Ala Ala *
 194

<210> 1052
 <211> 332
 <212> PRT
 <213> Homo sapiens

<400> 1052
 Met Ile Thr Leu Asn Asn Gln Asp Gln Pro Val Pro Phe Asn Ser Ser
 1 5 10 15
 His Pro Asp Glu Tyr Lys Ile Ala Ala Leu Val Phe Tyr Ser Cys Ile
 20 25 30
 Phe Ile Ile Gly Leu Phe Val Asn Ile Thr Ala Leu Trp Val Phe Ser
 35 40 45
 Cys Thr Thr Lys Lys Arg Thr Thr Val Thr Ile Tyr Met Met Asn Val
 50 55 60
 Ala Leu Val Asp Leu Ile Phe Ile Met Thr Leu Pro Phe Arg Met Phe
 65 70 75 80
 Tyr Tyr Ala Lys Asp Glu Trp Pro Phe Gly Glu Tyr Phe Cys Gln Ile
 85 90 95
 Leu Gly Ala Leu Thr Val Phe Tyr Pro Ser Ile Ala Leu Trp Leu Leu
 100 105 110
 Ala Phe Ile Ser Ala Asp Arg Tyr Met Ala Ile Val Gln Pro Lys Tyr
 115 120 125
 Ala Lys Glu Leu Lys Asn Thr Cys Lys Ala Val Leu Ala Cys Val Gly
 130 135 140
 Val Trp Ile Met Thr Leu Thr Thr Thr Thr Pro Leu Leu Leu Tyr
 145 150 155 160

Lys	Asp	Pro	Asp	Lys	Asp	Ser	Thr	Pro	Ala	Thr	Cys	Leu	Lys	Ile	Ser
				165					170					175	
Asp	Ile	Ile	Tyr	Leu	Lys	Ala	Val	Asn	Val	Leu	Asn	Leu	Thr	Arg	Leu
			180					185						190	
Thr	Phe	Phe	Phe	Leu	Ile	Pro	Leu	Phe	Ile	Met	Ile	Gly	Cys	Tyr	Leu
		195					200					205			
Val	Ile	Ile	His	Asn	Leu	Leu	His	Gly	Arg	Thr	Ser	Lys	Leu	Lys	Pro
	210					215					220				
Lys	Val	Lys	Glu	Lys	Ser	Ile	Arg	Ile	Ile	Ile	Thr	Leu	Leu	Val	Gln
225					230					235					240
Val	Leu	Val	Cys	Phe	Met	Pro	Phe	His	Ile	Cys	Phe	Ala	Phe	Leu	Met
			245					250						255	
Leu	Gly	Thr	Gly	Glu	Asn	Ser	Tyr	Asn	Pro	Trp	Gly	Ala	Phe	Thr	Thr
			260					265						270	
Phe	Leu	Met	Asn	Leu	Ser	Thr	Cys	Leu	Asp	Val	Ile	Leu	Tyr	Tyr	Ile
		275				280						285			
Val	Ser	Lys	Gln	Phe	Gln	Ala	Arg	Val	Ile	Ser	Val	Met	Leu	Tyr	Arg
	290					295					300				
Asn	Tyr	Leu	Arg	Ser	Met	Arg	Arg	Lys	Ser	Phe	Arg	Ser	Gly	Ser	Leu
305					310					315					320
Arg	Ser	Leu	Ser	Asn	Ile	Asn	Ser	Glu	Met	Leu	*				
				325					330	331					

<210> 1053

<211> 611

<212> PRT

<213> Homo sapiens

<400> 1053

Met	Glu	Thr	Ala	Pro	Lys	Pro	Gly	Lys	Asp	Val	Pro	Pro	Lys	Lys	Asp
1				5					10					15	
Lys	Leu	Gln	Thr	Lys	Arg	Lys	Lys	Pro	Arg	Arg	Tyr	Trp	Glu	Glu	Glu
		20					25						30		
Thr	Val	Pro	Thr	Thr	Ala	Gly	Ala	Ser	Pro	Gly	Pro	Pro	Arg	Asn	Lys
		35				40						45			
Lys	Asn	Arg	Glu	Leu	Arg	Pro	Gln	Arg	Pro	Lys	Asn	Ala	Tyr	Ile	Leu
	50					55					60				
Lys	Lys	Ser	Arg	Ile	Ser	Lys	Lys	Pro	Gln	Val	Pro	Lys	Lys	Pro	Arg
65					70					75					80
Glu	Trp	Lys	Asn	Pro	Glu	Ser	Gln	Arg	Gly	Leu	Ser	Gly	Ala	Gln	Asp
			85					90						95	
Pro	Phe	Pro	Gly	Pro	Ala	Pro	Val	Pro	Val	Glu	Val	Val	Gln	Lys	Phe
			100					105					110		
Cys	Arg	Ile	Asp	Lys	Ser	Arg	Lys	Leu	Pro	His	Ser	Lys	Ala	Lys	Thr
		115				120						125			
Arg	Ser	Arg	Leu	Glu	Val	Ala	Glu	Ala	Glu	Glu	Glu	Glu	Thr	Ser	Ile
	130					135					140				
Lys	Ala	Ala	Arg	Ser	Glu	Leu	Leu	Leu	Ala	Glu	Glu	Pro	Gly	Phe	Leu
145					150					155					160
Glu	Gly	Glu	Asp	Gly	Glu	Asp	Thr	Ala	Lys	Ile	Cys	Gln	Ala	Asp	Ile
			165					170						175	
Val	Glu	Ala	Val	Asp	Ile	Ala	Ser	Ala	Ala	Lys	His	Phe	Asp	Leu	Asn
			180					185					190		
Leu	Arg	Gln	Phe	Gly	Pro	Tyr	Arg	Leu	Asn	Tyr	Ser	Arg	Thr	Gly	Arg
		195				200						205			
His	Leu	Ala	Phe	Gly	Gly	Arg	Arg	Gly	His	Val	Ala	Ala	Leu	Asp	Trp
	210					215					220				
Val	Thr	Lys	Lys	Leu	Met	Cys	Glu	Ile	Asn	Val	Met	Glu	Ala	Val	Arg
225					230					235					240
Asp	Ile	Arg	Phe	Leu	His	Ser	Glu	Ala	Leu	Leu	Ala	Val	Ala	Gln	Asn
				245				250						255	

Arg Trp Leu His Ile Tyr Asp Asn Gln Gly Ile Glu Leu His Cys Ile
 260 265 270
 Arg Arg Cys Asp Arg Val Thr Arg Leu Glu Phe Leu Pro Phe His Phe
 275 280 285
 Leu Leu Ala Thr Ala Ser Glu Thr Gly Phe Leu Thr Tyr Leu Asp Val
 290 295 300
 Ser Val Gly Lys Ile Val Ala Ala Leu Asn Ala Arg Ala Gly Arg Leu
 305 310 315 320
 Asp Val Met Ser Gln Asn Pro Tyr Asn Ala Val Ile His Leu Gly His
 325 330 335
 Ser Asn Gly Thr Val Ser Leu Trp Ser Pro Ala Met Lys Glu Pro Leu
 340 345 350
 Ala Lys Ile Leu Cys His Arg Gly Gly Val Arg Ala Val Ala Val Asp
 355 360 365
 Ser Thr Gly Thr Tyr Met Ala Thr Ser Gly Leu Asp His Gln Leu Lys
 370 375 380
 Ile Phe Asp Leu Arg Gly Thr Tyr Gln Pro Leu Ser Thr Arg Thr Leu
 385 390 395 400
 Pro His Gly Ala Gly His Leu Ala Phe Ser Gln Arg Gly Leu Leu Val
 405 410 415
 Ala Gly Met Gly Asp Val Val Asn Ile Trp Ala Gly Gln Gly Lys Ala
 420 425 430
 Ser Pro Pro Ser Leu Glu Gln Pro Tyr Leu Thr His Arg Leu Ser Gly
 435 440 445
 Pro Val His Gly Leu Gln Phe Cys Pro Phe Glu Asp Val Leu Gly Val
 450 455 460
 Gly His Thr Gly Gly Ile Thr Ser Met Leu Val Pro Gly Ala Gly Glu
 465 470 475 480
 Pro Asn Phe Asp Gly Leu Glu Ser Asn Pro Tyr Arg Ser Arg Lys Gln
 485 490 495
 Arg Gln Glu Trp Glu Val Lys Ala Leu Leu Glu Lys Val Pro Ala Glu
 500 505 510
 Leu Ile Cys Leu Asp Pro Arg Ala Leu Ala Glu Val Asp Val Ile Ser
 515 520 525
 Leu Glu Gln Gly Lys Lys Glu Gln Ile Glu Arg Leu Gly Tyr Asp Pro
 530 535 540
 Gln Ala Lys Ala Pro Phe Gln Pro Lys Pro Lys Gln Lys Gly Arg Ser
 545 550 555 560
 Ser Thr Ala Ser Leu Val Lys Arg Lys Arg Lys Val Met Asp Glu Glu
 565 570 575
 His Arg Asp Lys Val Arg Gln Ser Leu Gln Gln Gln His His Lys Glu
 580 585 590
 Ala Lys Ala Lys Pro Thr Gly Ala Arg Pro Ser Ala Leu Asp Arg Phe
 595 600 605
 Val Arg *
 610

<210> 1054
 <211> 671
 <212> PRT
 <213> Homo sapiens

<400> 1054
 Met Pro Ala Pro Val Gly Arg Arg Ser Pro Pro Ser Pro Arg Ser Ser
 1 5 10 15
 Met Ala Ala Val Ala Leu Arg Asp Ser Ala Gln Gly Met Thr Phe Glu
 20 25 30
 Asp Val Ala Ile Tyr Phe Ser Gln Glu Glu Trp Glu Leu Leu Asp Glu
 35 40 45
 Ser Gln Arg Phe Leu Tyr Cys Asp Val Met Leu Glu Asn Phe Ala His
 50 55 60

Val	Thr	Ser	Leu	Gly	Tyr	Cys	His	Gly	Met	Glu	Asn	Glu	Ala	Ile	Ala	65	70	75	80
Ser	Glu	Gln	Ser	Val	Ser	Ile	Gln	Val	Arg	Thr	Ser	Lys	Gly	Asn	Thr	85	90	95	
Pro	Thr	Gln	Lys	Thr	His	Leu	Ser	Glu	Ile	Lys	Met	Cys	Val	Pro	Val	100	105	110	
Leu	Lys	Asp	Ile	Leu	Pro	Ala	Ala	Glu	His	Gln	Thr	Thr	Ser	Pro	Val	115	120	125	
Gln	Lys	Ser	Tyr	Leu	Gly	Ser	Thr	Ser	Met	Arg	Gly	Phe	Cys	Phe	Ser	130	135	140	
Ala	Asp	Leu	His	Gln	His	Gln	Lys	His	Tyr	Asn	Glu	Glu	Glu	Pro	Trp	145	150	155	160
Lys	Arg	Lys	Val	Asp	Glu	Ala	Thr	Phe	Val	Thr	Gly	Cys	Arg	Phe	His	165	170	175	
Val	Leu	Asn	Tyr	Phe	Thr	Cys	Gly	Glu	Ala	Phe	Pro	Ala	Pro	Thr	Asp	180	185	190	
Leu	Leu	Gln	His	Glu	Ala	Thr	Pro	Ser	Gly	Glu	Glu	Pro	His	Ser	Ser	195	200	205	
Ser	Ser	Lys	His	Ile	Gln	Ala	Phe	Phe	Asn	Ala	Lys	Ser	Tyr	Tyr	Lys	210	215	220	
Trp	Gly	Glu	Tyr	Arg	Lys	Ala	Ser	Ser	His	Lys	His	Thr	Leu	Val	Gln	225	230	235	240
His	Gln	Ser	Val	Cys	Ser	Glu	Gly	Gly	Leu	Tyr	Glu	Cys	Ser	Lys	Cys	245	250	255	
Glu	Lys	Ala	Phe	Thr	Cys	Lys	Asn	Thr	Leu	Val	Gln	His	Gln	Gln	Ile	260	265	270	
His	Thr	Gly	Gln	Lys	Met	Phe	Glu	Cys	Ser	Glu	Cys	Glu	Glu	Ser	Phe	275	280	285	
Ser	Lys	Lys	Cys	His	Leu	Ile	Leu	His	Lys	Ile	Ile	His	Thr	Gly	Glu	290	295	300	
Arg	Pro	Tyr	Glu	Cys	Ser	Asp	Arg	Glu	Lys	Ala	Phe	Ile	His	Lys	Ser	305	310	315	320
Glu	Phe	Ile	His	His	Gln	Arg	Arg	His	Thr	Gly	Gly	Val	Arg	His	Glu	325	330	335	
Cys	Gly	Glu	Cys	Arg	Lys	Thr	Phe	Ser	Tyr	Lys	Ser	Asn	Leu	Ile	Glu	340	345	350	
His	Gln	Arg	Val	His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Gly	Glu	Cys	355	360	365	
Gly	Lys	Ser	Phe	Arg	Gln	Ser	Ser	Ser	Leu	Phe	Arg	His	Gln	Arg	Val	370	375	380	
His	Ser	Gly	Glu	Arg	Pro	Tyr	Gln	Cys	Cys	Glu	Cys	Gly	Lys	Ser	Phe	385	390	395	400
Arg	Gln	Ile	Phe	Asn	Leu	Ile	Arg	His	Arg	Arg	Val	His	Thr	Gly	Glu	405	410	415	
Met	Pro	Tyr	Gln	Cys	Ser	Asp	Cys	Gly	Lys	Ser	Phe	Ser	Cys	Lys	Ser	420	425	430	
Glu	Leu	Ile	Gln	His	Gln	Arg	Ile	His	Ser	Gly	Glu	Arg	Pro	Tyr	Glu	435	440	445	
Cys	Arg	Glu	Cys	Gly	Lys	Ser	Phe	Arg	Gln	Phe	Ser	Asn	Leu	Ile	Arg	450	455	460	
His	Arg	Ser	Ile	His	Thr	Gly	Asp	Arg	Pro	Tyr	Glu	Cys	Ser	Glu	Cys	465	470	475	480
Glu	Lys	Ser	Phe	Ser	Arg	Lys	Phe	Ile	Leu	Ile	Gln	His	Gln	Arg	Val	485	490	495	
His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe	500	505	510	
Thr	Arg	Lys	Ser	Asp	Leu	Ile	Gln	His	Arg	Arg	Ile	His	Thr	Gly	Thr	515	520	525	
Arg	Pro	Tyr	Glu	Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe	Arg	Gln	Arg	Ser	530	535	540	
Gly	Leu	Ile	Gln	His	Arg	Arg	Leu	His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	545	550	555	560
Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Gln	Ser	Ala	Ser	Leu	Ile	Gln	565	570	575	

His	Gln	Arg	Val	His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Ser	Glu	Cys
			580					585					590		
Gly	Lys	Ser	Phe	Ser	Gln	Ser	Ser	Leu	Ile	Gln	His	Gln	Arg	Gly	
		595					600					605			
His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Ser	Gln	Cys	Gly	Lys	Pro	Phe
	610					615					620				
Thr	His	Lys	Ser	Asp	Leu	Ile	Gln	His	Gln	Arg	Val	His	Thr	Gly	Glu
625					630					635					640
Arg	Pro	Tyr	Glu	Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Arg	Lys	Ser
				645					650					655	
Asn	Leu	Ile	Arg	His	Arg	Arg	Val	His	Thr	Glu	Glu	Arg	Pro	*	
			660					665					670		

<210> 1055
 <211> 798
 <212> PRT
 <213> Homo sapiens

<400> 1055

Met	Ala	His	Arg	Cys	Leu	Arg	Leu	Trp	Gly	Arg	Gly	Gly	Cys	Trp	Pro
1				5					10					15	
Arg	Gly	Leu	Gln	Gln	Leu	Leu	Val	Pro	Gly	Gly	Val	Gly	Pro	Gly	Glu
			20					25					30		
Gln	Pro	Cys	Leu	Arg	Thr	Leu	Tyr	Arg	Phe	Val	Thr	Thr	Gln	Ala	Arg
		35					40					45			
Ala	Ser	Arg	Asn	Ser	Leu	Leu	Thr	Asp	Ile	Ile	Ala	Ala	Tyr	Gln	Arg
	50					55					60				
Phe	Cys	Ser	Arg	Pro	Pro	Lys	Gly	Phe	Gly	Lys	Tyr	Phe	Pro	Asn	Gly
65					70					75					80
Lys	Asn	Gly	Lys	Lys	Ala	Ser	Glu	Pro	Lys	Glu	Val	Met	Gly	Glu	Lys
				85					90					95	
Lys	Glu	Ser	Lys	Pro	Ala	Ala	Thr	Thr	Arg	Ser	Ser	Gly	Gly	Gly	Gly
			100					105					110		
Gly	Gly	Gly	Gly	Lys	Arg	Gly	Gly	Lys	Lys	Asp	Asp	Ser	His	Trp	Trp
		115				120						125			
Ser	Arg	Phe	Gln	Lys	Gly	Asp	Ile	Pro	Trp	Asp	Asp	Lys	Asp	Phe	Arg
	130					135					140				
Met	Phe	Phe	Leu	Trp	Thr	Ala	Leu	Phe	Trp	Gly	Gly	Val	Met	Phe	Tyr
145					150					155					160
Leu	Leu	Leu	Lys	Arg	Ser	Gly	Arg	Glu	Ile	Thr	Trp	Lys	Asp	Phe	Val
				165				170						175	
Asn	Asn	Tyr	Leu	Ser	Lys	Gly	Val	Val	Asp	Arg	Leu	Glu	Val	Val	Asn
			180					185					190		
Lys	Arg	Phe	Val	Arg	Val	Thr	Phe	Thr	Pro	Gly	Lys	Thr	Pro	Val	Asp
		195					200					205			
Gly	Gln	Tyr	Val	Trp	Phe	Asn	Ile	Gly	Ser	Val	Asp	Thr	Phe	Glu	Arg
	210					215					220				
Asn	Leu	Glu	Thr	Leu	Gln	Gln	Glu	Leu	Gly	Ile	Glu	Gly	Glu	Asn	Arg
225					230					235					240
Val	Pro	Val	Val	Tyr	Ile	Ala	Glu	Ser	Asp	Gly	Ser	Phe	Leu	Leu	Ser
				245					250					255	
Met	Leu	Pro	Thr	Val	Leu	Ile	Ile	Ala	Phe	Leu	Leu	Tyr	Thr	Ile	Arg
			260					265					270		
Arg	Gly	Pro	Ala	Ala	Ile	Gly	Arg	Thr	Gly	Arg	Gly	Met	Gly	Gly	Leu
		275					280					285			
Phe	Ser	Val	Gly	Glu	Thr	Thr	Ala	Lys	Val	Leu	Lys	Asp	Glu	Ile	Asp
	290					295					300				
Val	Lys	Phe	Lys	Asp	Val	Ala	Gly	Cys	Glu	Glu	Ala	Lys	Leu	Glu	Ile
305					310					315					320
Met	Glu	Phe	Val	Asn	Phe	Leu	Lys	Asn	Pro	Lys	Gln	Tyr	Gln	Asp	Leu
				325					330					335	

Gly	Ala	Lys	Ile	Pro	Lys	Gly	Ala	Ile	Leu	Thr	Gly	Pro	Pro	Gly	Thr
			340					345					350		
Gly	Lys	Thr	Leu	Leu	Ala	Lys	Ala	Thr	Ala	Gly	Glu	Ala	Asn	Val	Pro
		355					360					365			
Phe	Ile	Thr	Val	Ser	Gly	Ser	Glu	Phe	Leu	Glu	Met	Phe	Val	Gly	Val
	370					375					380				
Gly	Pro	Ala	Arg	Val	Arg	Asp	Leu	Phe	Ala	Leu	Ala	Arg	Lys	Asn	Ala
385					390					395					400
Pro	Cys	Ile	Leu	Phe	Ile	Asp	Glu	Ile	Asp	Ala	Val	Gly	Arg	Lys	Arg
			405					410					415		
Gly	Arg	Gly	Asn	Phe	Gly	Gly	Gln	Ser	Glu	Gln	Glu	Asn	Thr	Leu	Asn
			420					425					430		
Gln	Leu	Leu	Val	Glu	Met	Asp	Gly	Phe	Asn	Thr	Thr	Thr	Asn	Val	Val
	435						440					445			
Ile	Leu	Ala	Gly	Thr	Asn	Arg	Pro	Asp	Ile	Leu	Asp	Pro	Ala	Leu	Leu
	450					455					460				
Arg	Pro	Gly	Arg	Phe	Asp	Arg	Gln	Ile	Phe	Ile	Gly	Pro	Pro	Asp	Ile
465					470					475					480
Lys	Gly	Arg	Ala	Ser	Ile	Phe	Lys	Val	His	Leu	Arg	Pro	Leu	Lys	Leu
			485					490						495	
Asp	Ser	Thr	Leu	Glu	Lys	Asp	Lys	Leu	Ala	Arg	Lys	Leu	Ala	Ser	Leu
			500					505					510		
Thr	Pro	Gly	Phe	Ser	Gly	Ala	Asp	Val	Ala	Asn	Val	Cys	Asn	Glu	Ala
		515					520					525			
Ala	Leu	Ile	Ala	Ala	Arg	His	Leu	Ser	Asp	Ser	Ile	Asn	Gln	Lys	His
	530					535					540				
Phe	Glu	Gln	Ala	Ile	Glu	Arg	Val	Ile	Gly	Gly	Leu	Glu	Lys	Lys	Thr
545					550					555					560
Gln	Val	Leu	Gln	Pro	Glu	Glu	Lys	Lys	Thr	Val	Ala	Tyr	His	Glu	Ala
			565						570					575	
Gly	His	Ala	Val	Ala	Gly	Trp	Tyr	Leu	Glu	His	Ala	Asp	Pro	Leu	Leu
			580					585					590		
Lys	Val	Ser	Ile	Ile	Pro	Arg	Gly	Lys	Gly	Leu	Gly	Tyr	Ala	Gln	Tyr
		595					600					605			
Leu	Pro	Lys	Glu	Gln	Tyr	Leu	Tyr	Thr	Lys	Glu	Gln	Leu	Leu	Asp	Arg
	610					615					620				
Met	Cys	Met	Thr	Leu	Gly	Gly	Arg	Val	Ser	Glu	Glu	Ile	Phe	Phe	Gly
625					630					635					640
Arg	Ile	Thr	Thr	Gly	Ala	Gln	Asp	Asp	Leu	Arg	Lys	Val	Thr	Gln	Ser
			645						650					655	
Ala	Tyr	Ala	Gln	Ile	Val	Gln	Phe	Gly	Met	Asn	Glu	Lys	Val	Gly	Gln
		660						665					670		
Ile	Ser	Phe	Asp	Leu	Pro	Arg	Gln	Gly	Asp	Met	Val	Leu	Glu	Lys	Pro
		675					680					685			
Tyr	Ser	Glu	Ala	Thr	Ala	Arg	Leu	Ile	Asp	Asp	Glu	Val	Arg	Ile	Leu
	690					695					700				
Ile	Asn	Asp	Ala	Tyr	Lys	Arg	Thr	Val	Ala	Leu	Leu	Thr	Glu	Lys	Lys
705					710					715					720
Ala	Asp	Val	Glu	Lys	Val	Ala	Leu	Leu	Leu	Leu	Glu	Lys	Glu	Val	Leu
			725						730					735	
Asp	Lys	Asn	Asp	Met	Val	Glu	Leu	Leu	Gly	Pro	Arg	Pro	Phe	Ala	Glu
			740					745					750		
Lys	Ser	Thr	Tyr	Glu	Glu	Phe	Val	Glu	Gly	Thr	Gly	Ser	Leu	Asp	Glu
		755					760					765			
Asp	Thr	Ser	Leu	Pro	Glu	Gly	Leu	Lys	Asp	Trp	Asn	Lys	Glu	Arg	Glu
	770					775					780				
Lys	Glu	Lys	Glu	Glu	Pro	Pro	Gly	Glu	Lys	Val	Ala	Asn	*		
785					790					795		797			

<210> 1056

<211> 387

<212> PRT

<213> Homo sapiens

<400> 1056

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Met Ser Ala Leu Glu Lys Ser Met His Leu Gly Arg Leu Pro Ser Arg
 1          5          10          15
Pro Pro Leu Pro Gly Ser Gly Gly Ser Gln Ser Gly Ala Lys Met Arg
          20          25          30
Met Gly Pro Gly Arg Lys Arg Asp Phe Ser Pro Val Pro Trp Ser Gln
          35          40          45
Tyr Phe Glu Ser Met Glu Asp Val Glu Val Glu Asn Glu Thr Gly Lys
          50          55          60
Asp Thr Phe Arg Val Tyr Lys Ser Gly Ser Glu Gly Pro Val Leu Leu
65          70          75          80
Leu Leu His Gly Gly Gly His Ser Ala Leu Ser Trp Ala Val Phe Thr
          85          90          95
Ala Ala Ile Ile Ser Arg Val Gln Cys Arg Ile Val Ala Leu Asp Leu
          100          105          110
Arg Ser His Gly Glu Thr Lys Val Lys Asn Pro Glu Asp Leu Ser Ala
          115          120          125
Glu Thr Met Ala Lys Asp Val Gly Asn Val Val Glu Ala Met Tyr Gly
          130          135          140
Asp Leu Pro Pro Pro Ile Met Leu Ile Gly His Ser Met Gly Gly Ala
145          150          155          160
Ile Ala Val His Thr Ala Ser Ser Asn Leu Val Pro Ser Leu Leu Gly
          165          170          175
Leu Cys Met Ile Asp Val Val Glu Gly Thr Ala Met Asp Ala Leu Asn
          180          185          190
Ser Met Gln Asn Phe Leu Arg Gly Arg Pro Lys Thr Phe Lys Ser Leu
          195          200          205
Glu Asn Ala Ile Glu Trp Ser Val Lys Ser Gly Gln Ile Arg Asn Leu
          210          215          220
Glu Ser Ala Arg Val Ser Met Val Gly Gln Val Lys Gln Cys Glu Gly
225          230          235          240
Ile Thr Ser Pro Glu Gly Ser Lys Ser Ile Val Glu Gly Ile Ile Glu
          245          250          255
Glu Glu Glu Glu Asp Glu Glu Gly Ser Glu Ser Ile Ser Lys Arg Lys
          260          265          270
Lys Glu Asp Asp Met Glu Thr Lys Lys Asp His Pro Tyr Thr Trp Arg
          275          280          285
Ile Glu Leu Ala Lys Thr Glu Lys Tyr Trp Asp Gly Trp Phe Arg Gly
          290          295          300
Leu Ser Asn Leu Phe Leu Ser Cys Pro Ile Pro Lys Leu Leu Leu Leu
305          310          315          320
Ala Gly Val Asp Arg Leu Asp Lys Asp Leu Thr Ile Gly Gln Met Gln
          325          330          335
Gly Lys Phe Gln Met Gln Val Leu Pro Gln Cys Gly His Ala Val His
          340          345          350
Glu Asp Ala Pro Asp Lys Val Ala Glu Ala Val Ala Thr Phe Leu Ile
          355          360          365
Arg His Arg Phe Ala Glu Pro Ile Gly Gly Phe Gln Cys Val Phe Pro
          370          375          380
Gly Cys *
385 386

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<210> 1057

<211> 56

<212> PRT

<213> Homo sapiens

<400> 1057

Met	Gly	Arg	Pro	Arg	Asp	Arg	Lys	Glu	Leu	Gly	Arg	Gly	His	Ser	Pro
1				5					10					15	
Pro	His	Leu	Glu	Gly	Pro	His	Met	Leu	Pro	Ser	Gly	Ala	Ala	Arg	Trp
		20						25					30		
Arg	Trp	Leu	Glu	Ala	Pro	Val	Leu	Val	Leu	Glu	Pro	Leu	Val	Leu	Arg
		35					40					45			
Pro	Ala	Ala	Ala	Pro	Thr	Pro	*								
	50					55									

<210> 1058
 <211> 336
 <212> PRT
 <213> Homo sapiens

<400> 1058

Met	Gly	Phe	Asn	Val	Glu	Glu	Met	Cys	Glu	Ala	His	Ala	Trp	Ile	Gln
1				5					10					15	
Arg	Ile	Leu	Ser	Leu	Gln	Asn	His	His	Ile	Ile	Glu	Asn	Asn	His	Ile
		20					25					30			
Leu	Tyr	Leu	Gly	Arg	Lys	Glu	His	Asp	Ile	Leu	Ser	Gln	Leu	Gln	Lys
		35					40					45			
Thr	Ser	Ser	Val	Ser	Ile	Thr	Glu	Ile	Ile	Ser	Pro	Gly	Arg	Thr	Glu
	50					55				60					
Leu	Glu	Ile	Glu	Gly	Ala	Arg	Ala	Asp	Leu	Ile	Glu	Val	Val	Met	Asn
65				70					75					80	
Ile	Glu	Asp	Met	Leu	Cys	Lys	Val	Gln	Glu	Glu	Met	Ala	Arg	Lys	Lys
			85					90						95	
Glu	Arg	Gly	Leu	Trp	Arg	Ser	Leu	Gly	Gln	Trp	Thr	Ile	Gln	Gln	Gln
			100					105					110		
Lys	Thr	Gln	Asp	Glu	Met	Lys	Glu	Asn	Ile	Ile	Phe	Leu	Lys	Cys	Pro
		115					120					125			
Val	Pro	Pro	Thr	Gln	Glu	Leu	Leu	Asp	Gln	Lys	Lys	Gln	Phe	Glu	Lys
	130					135					140				
Cys	Gly	Leu	Gln	Val	Leu	Lys	Val	Glu	Lys	Ile	Asp	Asn	Glu	Val	Leu
145				150						155				160	
Met	Ala	Ala	Phe	Gln	Arg	Lys	Lys	Lys	Met	Met	Glu	Glu	Lys	Leu	His
				165					170					175	
Arg	Gln	Pro	Val	Ser	His	Arg	Leu	Phe	Gln	Gln	Val	Pro	Tyr	Gln	Phe
		180						185					190		
Cys	Asn	Val	Val	Cys	Arg	Val	Gly	Phe	Gln	Arg	Met	Tyr	Ser	Thr	Pro
		195					200					205			
Cys	Asp	Pro	Lys	Tyr	Gly	Ala	Gly	Ile	Tyr	Phe	Thr	Lys	Asn	Leu	Lys
	210					215					220				
Asn	Leu	Ala	Glu	Lys	Ala	Lys	Lys	Ile	Ser	Ala	Ala	Asp	Lys	Leu	Ile
225				230						235				240	
Tyr	Val	Phe	Glu	Ala	Glu	Val	Leu	Thr	Gly	Phe	Phe	Cys	Gln	Gly	His
				245					250					255	
Pro	Leu	Asn	Ile	Val	Pro	Pro	Pro	Leu	Ser	Pro	Gly	Ala	Ile	Asp	Gly
		260						265					270		
His	Asp	Ser	Val	Val	Asp	Asn	Val	Ser	Ser	Pro	Glu	Thr	Phe	Val	Ile
		275					280					285			
Phe	Ser	Gly	Met	Gln	Ala	Ile	Pro	Gln	Tyr	Leu	Trp	Thr	Cys	Thr	Gln
	290					295					300				
Glu	Tyr	Val	Gln	Ser	Gln	Asp	Tyr	Ser	Ser	Gly	Pro	Met	Arg	Pro	Phe
305				310						315				320	
Ala	Gln	His	Pro	Trp	Arg	Gly	Phe	Ala	Ser	Gly	Ser	Pro	Val	Asp	*
				325					330					335	

<210> 1059

<211> 147
 <212> PRT
 <213> Homo sapiens

<400> 1059
 Met Gly Phe Ile Phe Ser Lys Ser Met Asn Glu Ser Met Lys Asn Gln
 1 5 10 15
 Lys Glu Phe Met Leu Met Asn Ala Arg Leu Gln Leu Glu Arg Gln Leu
 20 25 30
 Ile Met Gln Ser Glu Met Arg Glu Arg Gln Met Ala Met Gln Ile Ala
 35 40 45
 Trp Ser Arg Glu Phe Leu Lys Tyr Phe Gly Thr Phe Phe Gly Leu Ala
 50 55 60
 Ala Ile Ser Leu Thr Ala Gly Ala Ile Lys Lys Lys Lys Pro Ala Phe
 65 70 75 80
 Leu Val Pro Ile Val Pro Leu Ser Phe Ile Leu Thr Tyr Gln Tyr Asp
 85 90 95
 Leu Gly Tyr Gly Thr Leu Leu Glu Arg Met Lys Gly Glu Ala Glu Asp
 100 105 110
 Ile Leu Glu Thr Glu Lys Ser Lys Leu Gln Leu Pro Arg Gly Met Ile
 115 120 125
 Thr Phe Glu Ser Ile Glu Lys Ala Arg Lys Glu Gln Ser Arg Phe Phe
 130 135 140
 Ile Asp Lys
 145 147

<210> 1060
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 1060
 Met Lys Met Leu Trp Lys Leu Thr Asp Asn Ile Lys Tyr Glu Asp Cys
 1 5 10 15
 Glu Val Ser Ala Thr Pro Ala Arg Ser Ser Val Arg Ser Gln Ala Pro
 20 25 30
 Ser Leu Thr Leu Pro Leu Leu Leu Leu Ser Leu Gln Pro Ala Ala Lys
 35 40 45
 Arg Gly Trp Asp Lys Leu Ser Pro Ala Gln Arg Pro Ser Leu Gly Phe
 50 55 60
 Ala Arg Arg Thr Arg Gly Arg Ser Cys Arg Glu Arg Thr Trp Met Leu
 65 70 75 80
 Pro Ser Leu Val Ser Glu Phe Leu His Arg Asp
 85 90 91

<210> 1061
 <211> 254
 <212> PRT
 <213> Homo sapiens

<400> 1061
 Met Ile Ser Ser Asn Thr Ser Tyr Leu Ser Ser Arg Gly Arg Met Ile
 1 5 10 15
 Lys Trp Phe Trp Asp Ser Ala Glu Glu Gly Tyr Arg Thr Tyr His Met
 20 25 30
 Asp Glu Tyr Asp Glu Asp Lys Asn Pro Ser Gly Ile Ile Asn Leu Gly
 35 40 45

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Thr Ser Glu Asn Lys Leu Cys Phe Asp Leu Leu Ser Trp Arg Leu Ser
  50                      55                      60
Gln Arg Asp Met Gln Arg Val Glu Pro Ser Leu Leu Gln Tyr Ala Asp
  65                      70                      75                      80
Trp Arg Gly His Leu Phe Leu Arg Glu Glu Val Ala Lys Phe Leu Ser
                      85                      90                      95
Phe Tyr Cys Lys Ser Pro Val Pro Leu Arg Pro Glu Asn Val Val Val
                      100                      105                      110
Leu Asn Gly Gly Ala Ser Leu Phe Ser Ala Leu Ala Thr Val Leu Cys
                      115                      120                      125
Glu Ala Gly Glu Ala Phe Leu Ile Pro Thr Pro Tyr Tyr Gly Ala Ile
                      130                      135                      140
Thr Gln His Val Cys Leu Tyr Gly Asn Ile Arg Leu Ala Tyr Val Tyr
145                      150                      155                      160
Leu Asp Ser Glu Val Thr Gly Leu Asp Thr Arg Pro Phe Gln Leu Thr
                      165                      170                      175
Val Glu Lys Leu Glu Met Ala Leu Arg Glu Ala His Ser Glu Gly Val
                      180                      185                      190
Lys Val Lys Gly Leu Ile Leu Ile Ser Pro Gln Asn Pro Leu Gly Asp
                      195                      200                      205
Val Tyr Ser Pro Glu Glu Leu Gln Glu Tyr Leu Val Phe Ala Lys Arg
210                      215                      220
His Arg Leu His Val Ile Val Asp Glu Val Tyr Met Leu Ser Val Phe
225                      230                      235                      240
Glu Lys Ser Val Gly Tyr Arg Ser Val Leu Ser Leu Glu Arg
                      245                      250                      254

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<210> 1062
<211> 166
<212> PRT
<213> Homo sapiens

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<400> 1062
Met Ala Val Ser Thr Val Phe Ser Thr Ser Ser Leu Met Leu Ala Leu
  1                      5                      10                      15
Ser Arg His Ser Leu Leu Ser Pro Leu Leu Ser Val Thr Ser Phe Arg
                      20                      25                      30
Arg Phe Tyr Arg Gly Asp Ser Pro Thr Asp Ser Gln Lys Asp Met Ile
                      35                      40                      45
Glu Ile Pro Leu Pro Pro Trp Gln Glu Arg Thr Asp Glu Ser Ile Glu
  50                      55                      60
Thr Lys Arg Ala Arg Leu Leu Tyr Glu Ser Arg Lys Arg Gly Met Leu
  65                      70                      75                      80
Glu Asn Cys Ile Leu Leu Ser Leu Phe Ala Lys Glu His Leu Gln His
                      85                      90                      95
Met Thr Glu Lys Gln Leu Asn Leu Tyr Asp Arg Leu Ile Asn Glu Pro
                      100                      105                      110
Ser Asn Asp Trp Asp Ile Tyr Tyr Trp Ala Thr Glu Ala Lys Pro Ala
                      115                      120                      125
Pro Glu Ile Phe Glu Asn Glu Val Met Ala Leu Leu Arg Asp Phe Ala
130                      135                      140
Lys Asn Lys Asn Lys Glu Gln Arg Leu Arg Ala Pro Asp Leu Glu Tyr
145                      150                      155                      160
Leu Phe Glu Lys Pro Arg
                      165 166

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<210> 1063
<211> 291
<212> PRT

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<213> Homo sapiens

<400> 1063

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Met Arg Asn Val Lys Lys Gln Asp Pro Leu Val Gln Cys Gly Gly Ile
 1          5          10          15
Leu His Ser Leu Trp Pro Trp Ile Leu Met Asp Asp Ser Leu Met Gln
          20          25          30
Ile Ser Leu Gln Leu Leu Cys Val Tyr Thr Ala Asn Phe Pro Asn Gly
          35          40          45
Cys Ser Ser Leu Cys Trp Ser Ser Cys Gly Gln His Pro Val Gln Ala
          50          55          60
Thr His Arg Gly Ala Val Ser Asn Ser Leu Met Leu Cys Ile Leu Lys
          65          70          75          80
Leu Ala Ser Gln Met Pro Leu Glu Asn Thr Thr Val Gln Gln Met Val
          85          90          95
Phe Met Leu Leu Ser Asn Leu Ala Leu Ser His Asp Cys Lys Gly Val
          100          105          110
Ile Gln Lys Ser Asn Phe Leu Gln Asn Phe Leu Ser Leu Ala Leu Pro
          115          120          125
Lys Gly Gly Asn Lys His Leu Ser Asn Leu Thr Ile Leu Trp Leu Lys
          130          135          140
Leu Leu Leu Asn Ile Ser Ser Gly Glu Asp Gly Gln Gln Met Ile Leu
          145          150          155          160
Arg Leu Asp Gly Cys Leu Asp Leu Leu Thr Glu Met Ser Lys Tyr Lys
          165          170          175
His Lys Ser Ser Pro Leu Leu Pro Leu Leu Ile Phe His Asn Val Cys
          180          185          190
Phe Ser Pro Ala Asn Lys Pro Lys Ile Leu Ala Asn Glu Lys Val Ile
          195          200          205
Thr Val Leu Ala Ala Cys Leu Glu Ser Glu Asn Gln Asn Ala Gln Arg
          210          215          220
Ile Gly Ala Ala Ala Leu Trp Ala Leu Ile Tyr Asn Tyr Gln Lys Ala
          225          230          235          240
Lys Thr Ala Leu Lys Ser Pro Ser Val Lys Arg Arg Val Asp Glu Ala
          245          250          255
Tyr Ser Leu Ala Lys Lys Thr Phe Pro Asn Ser Glu Ala Asn Pro Leu
          260          265          270
Asn Ala Tyr Tyr Leu Lys Cys Leu Glu Asn Leu Val Gln Leu Leu Asn
          275          280          285
Ser Ser *
          290

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<210> 1064

<211> 401

<212> PRT

<213> Homo sapiens

<400> 1064

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Met Gly Lys Asn Pro Val Arg Pro Pro Arg Ala Leu Pro Pro Val Pro
 1          5          10          15
Ser Gln Asp Asp Ile Pro Leu Ser Arg Pro Lys Lys Lys Lys Pro Arg
          20          25          30
Thr Lys Asn Thr Pro Ala Ser Ala Ser Leu Glu Gly Leu Ala Gln Thr
          35          40          45
Ala Gly Arg Arg Pro Ser Glu Gly Asn Glu Pro Ser Thr Lys Glu Leu
          50          55          60
Lys Glu His Pro Glu Ala Pro Val Gln Arg Arg Gln Lys Lys Thr Arg
          65          70          75          80
Leu Pro Leu Glu Leu Glu Thr Ser Ser Thr Gln Lys Lys Ser Ser Ser
          85          90          95

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Ser Ser Leu Leu Arg Asn Glu Asn Gly Ile Asp Ala Glu Pro Ala Glu
      100      105      110
Glu Ala Val Ile Gln Lys Pro Arg Arg Lys Thr Lys Lys Thr Gln Pro
      115      120      125
Ala Glu Leu Gln Tyr Ala Asn Glu Leu Gly Val Glu Asp Glu Asp Ile
      130      135      140
Ile Thr Asp Glu Gln Thr Thr Val Glu Gln Gln Ser Val Phe Thr Ala
      145      150      155      160
Pro Thr Gly Ile Ser Gln Pro Val Gly Lys Val Phe Val Glu Lys Ser
      165      170      175
Arg Arg Phe Gln Ala Ala Asp Arg Ser Glu Leu Ile Lys Thr Thr Glu
      180      185      190
Asn Ile Asp Val Ser Met Asp Val Lys Pro Ser Trp Thr Thr Arg Asp
      195      200      205
Val Ala Leu Thr Val His Arg Ala Phe Arg Met Ile Gly Leu Phe Ser
      210      215      220
His Gly Phe Leu Ala Gly Cys Ala Val Trp Asn Ile Val Val Ile Tyr
      225      230      235      240
Val Leu Ala Gly Asp Gln Leu Ser Asn Leu Ser Asn Leu Leu Gln Gln
      245      250      255
Tyr Lys Thr Leu Ala Tyr Pro Phe Gln Ser Leu Leu Tyr Leu Leu Leu
      260      265      270
Ala Leu Ser Thr Ile Ser Ala Phe Asp Arg Ile Asp Phe Ala Lys Ile
      275      280      285
Ser Val Ala Ile Arg Asn Phe Leu Ala Leu Asp Pro Thr Ala Leu Ala
      290      295      300
Ser Phe Leu Tyr Phe Thr Ala Leu Ile Leu Ser Leu Ser Gln Gln Met
      305      310      315      320
Thr Ser Asp Arg Ile His Leu Tyr Thr Pro Ser Ser Val Asn Gly Ser
      325      330      335
Leu Trp Glu Ala Gly Ile Glu Glu Gln Ile Leu Gln Pro Trp Ile Val
      340      345      350
Val Asn Leu Val Val Ala Leu Leu Val Gly Leu Ser Trp Leu Phe Leu
      355      360      365
Ser Tyr Arg Pro Gly Met Asp Leu Ser Glu Glu Leu Met Phe Ser Ser
      370      375      380
Glu Val Glu Glu Tyr Pro Asp Lys Glu Lys Glu Ile Lys Ala Ser Ser
      385      390      395      400

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<210> 1065
<211> 367
<212> PRT
<213> Homo sapiens

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      <400> 1065
Met Ser Leu His Gly Ala Ser Gly Gly His Glu Arg Ser Arg Asp Arg
  1      5      10      15
Arg Arg Ser Ser Asp Arg Ser Arg Asp Ser Ser His Glu Arg Thr Glu
      20      25      30
Ser Gln Leu Thr Pro Cys Ile Arg Asn Val Thr Ser Pro Thr Arg Gln
      35      40      45
His His Val Glu Arg Glu Lys Asp His Ser Ser Ser Arg Pro Ser Ser
      50      55      60
Pro Arg Pro Gln Lys Ala Ser Pro Asn Gly Ser Ile Ser Ser Ala Gly
      65      70      75      80
Asn Ser Ser Arg Asn Ser Ser Gln Ser Ser Ser Asp Gly Ser Cys Lys
      85      90      95
Thr Ala Gly Glu Met Val Phe Val Tyr Glu Asn Ala Lys Glu Gly Ala
      100      105      110

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Arg	Asn	Ile	Arg	Thr	Ser	Glu	Arg	Val	Thr	Leu	Ile	Val	Asp	Asn	Thr
		115						120				125			
Arg	Phe	Val	Val	Asp	Pro	Ser	Ile	Phe	Thr	Ala	Gln	Pro	Asn	Thr	Met
	130					135					140				
Leu	Gly	Arg	Met	Phe	Gly	Ser	Gly	Arg	Glu	His	Asn	Phe	Thr	Arg	Pro
145					150					155					160
Asn	Glu	Lys	Gly	Glu	Tyr	Glu	Val	Ala	Glu	Gly	Ile	Gly	Ser	Thr	Val
				165					170					175	
Phe	Arg	Ala	Ile	Leu	Asp	Tyr	Tyr	Lys	Thr	Gly	Ile	Ile	Arg	Cys	Pro
			180					185					190		
Asp	Gly	Ile	Ser	Ile	Pro	Glu	Leu	Arg	Glu	Ala	Cys	Asp	Tyr	Leu	Cys
	195					200					205				
Ile	Ser	Phe	Glu	Tyr	Ser	Thr	Ile	Lys	Cys	Arg	Asp	Leu	Ser	Ala	Leu
	210					215					220				
Met	His	Glu	Leu	Ser	Asn	Asp	Gly	Ala	Arg	Arg	Gln	Phe	Glu	Phe	Tyr
225					230					235					240
Leu	Glu	Glu	Met	Ile	Leu	Pro	Leu	Met	Val	Ala	Ser	Ala	Gln	Ser	Gly
				245					250					255	
Glu	Arg	Glu	Cys	His	Ile	Val	Val	Leu	Thr	Asp	Asp	Asp	Val	Val	Asp
			260					265					270		
Trp	Asp	Glu	Glu	Tyr	Pro	Pro	Gln	Met	Gly	Glu	Glu	Tyr	Ser	Gln	Ile
	275						280					285			
Ile	Tyr	Ser	Thr	Lys	Leu	Tyr	Arg	Phe	Phe	Lys	Tyr	Ile	Glu	Asn	Arg
	290					295					300				
Asp	Val	Ala	Lys	Ser	Val	Leu	Lys	Glu	Arg	Gly	Leu	Lys	Lys	Ile	Arg
305					310					315					320
Leu	Gly	Ile	Glu	Gly	Tyr	Pro	Thr	Tyr	Lys	Glu	Lys	Val	Lys	Lys	Arg
				325					330					335	
Pro	Gly	Gly	Ala	Pro	Arg	Ser	Asp	Leu	Gln	Leu	Cys	Pro	Lys	Thr	Leu
			340					345				350			
Tyr	Ser	Asn	Val	Leu	Gly	Arg	Arg	Lys	Lys	Glu	Arg	Val	Gly	Met	
		355					360					365		367	

<210> 1066
 <211> 634
 <212> PRT
 <213> Homo sapiens

<400> 1066

Met	Gln	Gly	Gly	Asn	Ser	Gly	Val	Arg	Lys	Arg	Glu	Glu	Glu	Gly	Asp
1				5					10					15	
Gly	Ala	Gly	Ala	Val	Ala	Ala	Pro	Pro	Ala	Ile	Asp	Phe	Pro	Ala	Glu
			20					25					30		
Gly	Pro	Asp	Pro	Glu	Tyr	Asp	Glu	Ser	Asp	Val	Pro	Ala	Glu	Ile	Gln
		35					40					45			
Val	Leu	Lys	Glu	Pro	Leu	Gln	Pro	Thr	Phe	Pro	Phe	Ala	Val	Ala	
	50					55				60					
Asn	Gln	Leu	Leu	Leu	Val	Ser	Leu	Leu	Glu	His	Leu	Ser	His	Val	His
65					70					75					80
Glu	Pro	Asn	Pro	Leu	Arg	Ser	Arg	Gln	Val	Phe	Lys	Leu	Leu	Cys	Gln
				85					90					95	
Thr	Phe	Ile	Lys	Met	Gly	Leu	Leu	Ser	Ser	Phe	Thr	Cys	Ser	Asp	Glu
			100					105					110		
Phe	Ser	Ser	Leu	Arg	Leu	His	His	Asn	Arg	Ala	Ile	Thr	His	Leu	Met
			115					120					125		
Arg	Ser	Ala	Lys	Glu	Arg	Val	Arg	Gln	Asp	Pro	Cys	Glu	Asp	Ile	Ser
	130					135					140				
Arg	Ile	Gln	Lys	Ile	Arg	Ser	Arg	Glu	Val	Ala	Leu	Glu	Ala	Gln	Thr
145					150					155					160
Ser	Arg	Tyr	Leu	Asn	Glu	Phe	Glu	Glu	Leu	Ala	Ile	Leu	Gly	Lys	Gly
				165					170					175	

Gly	Tyr	Gly	Arg	Val	Tyr	Lys	Val	Val	Phe	His	Val	Arg	Asn	Lys	Leu
			180					185					190		
Asp	Gly	Gln	Tyr	Tyr	Ala	Ile	Lys	Lys	Ile	Leu	Ile	Lys	Gly	Ala	Thr
		195					200					205			
Lys	Thr	Val	Cys	Met	Lys	Val	Leu	Arg	Glu	Val	Lys	Val	Leu	Ala	Gly
	210					215					220				
Leu	Gln	His	Pro	Asn	Ile	Val	Gly	Tyr	His	Thr	Ala	Trp	Ile	Glu	His
225					230					235					240
Val	His	Val	Ile	Gln	Pro	Arg	Ala	Asp	Arg	Ala	Ala	Ile	Glu	Leu	Pro
			245					250						255	
Ser	Leu	Glu	Val	Leu	Ser	Asp	Gln	Glu	Glu	Asp	Arg	Glu	Gln	Cys	Gly
			260				265						270		
Val	Lys	Asn	Asp	Glu	Ser	Ser	Ser	Ser	Ser	Ile	Ile	Phe	Ala	Glu	Pro
		275					280					285			
Thr	Pro	Glu	Lys	Glu	Lys	Arg	Phe	Gly	Glu	Ser	Asp	Thr	Glu	Asn	Gln
	290					295					300				
Asn	Asn	Lys	Ser	Val	Lys	Tyr	Thr	Thr	Asn	Leu	Val	Ile	Arg	Glu	Ser
305					310					315					320
Gly	Glu	Leu	Glu	Ser	Thr	Leu	Glu	Leu	Gln	Glu	Asn	Gly	Leu	Ala	Gly
				325					330					335	
Leu	Ser	Ala	Ser	Ser	Ile	Val	Glu	Gln	Gln	Leu	Pro	Leu	Arg	Arg	Asn
			340					345					350		
Ser	His	Leu	Glu	Glu	Ser	Phe	Thr	Ser	Thr	Glu	Glu	Ser	Ser	Glu	Glu
		355					360					365			
Asn	Val	Asn	Phe	Leu	Gly	Gln	Thr	Glu	Ala	Gln	Tyr	His	Leu	Met	Leu
	370					375					380				
His	Ile	Gln	Met	Gln	Leu	Cys	Glu	Leu	Ser	Leu	Trp	Asp	Trp	Ile	Val
385					390						395				400
Glu	Arg	Asn	Lys	Arg	Gly	Arg	Glu	Tyr	Val	Asp	Glu	Ser	Ala	Cys	Pro
			405						410					415	
Tyr	Val	Met	Ala	Asn	Val	Ala	Thr	Lys	Ile	Phe	Gln	Glu	Leu	Val	Glu
			420					425					430		
Gly	Val	Phe	Tyr	Ile	His	Asn	Met	Gly	Ile	Val	His	Arg	Asp	Leu	Lys
		435					440					445			
Pro	Arg	Asn	Ile	Phe	Leu	His	Gly	Pro	Asp	Gln	Gln	Val	Lys	Ile	Gly
	450					455					460				
Asp	Phe	Gly	Leu	Ala	Cys	Thr	Asp	Ile	Leu	Gln	Lys	Asn	Thr	Asp	Trp
465					470					475					480
Thr	Asn	Arg	Asn	Gly	Lys	Arg	Thr	Pro	Thr	His	Thr	Ser	Arg	Val	Gly
			485						490					495	
Thr	Cys	Leu	Tyr	Ala	Ser	Pro	Glu	Gln	Leu	Glu	Gly	Ser	Glu	Tyr	Asp
			500					505					510		
Ala	Lys	Ser	Asp	Met	Tyr	Ser	Leu	Gly	Val	Val	Leu	Leu	Glu	Leu	Phe
		515					520					525			
Gln	Pro	Phe	Gly	Thr	Glu	Met	Glu	Arg	Ala	Glu	Val	Leu	Thr	Gly	Leu
	530					535					540				
Arg	Thr	Gly	Gln	Leu	Pro	Glu	Ser	Leu	Arg	Lys	Arg	Cys	Pro	Val	Gln
					550					555					560
Ala	Lys	Tyr	Ile	Gln	His	Leu	Thr	Arg	Arg	Asn	Ser	Ser	Gln	Arg	Pro
			565						570					575	
Ser	Ala	Ile	Gln	Leu	Leu	Gln	Ser	Glu	Leu	Phe	Gln	Asn	Ser	Gly	Asn
			580					585					590		
Val	Asn	Leu	Thr	Leu	Gln	Met	Lys	Ile	Ile	Glu	Gln	Glu	Lys	Glu	Ile
		595					600					605			
Ala	Glu	Leu	Lys	Lys	Gln	Leu	Asn	Leu	Leu	Ser	Gln	Asp	Lys	Gly	Val
	610					615					620				
Arg	Asp	Asp	Gly	Lys	Asp	Gly	Gly	Val	Gly						
625					630				634						

<210> 1067

<211> 320

<212> PRT

<213> Homo sapiens

<400> 1067

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Met Lys Ile Glu Leu Ser Met Gln Pro Trp Asn Pro Gly Tyr Ser Ser
 1          5          10          15
Glu Gly Ala Thr Ala Gln Glu Thr Tyr Thr Cys Pro Lys Met Ile Glu
          20          25          30
Met Glu Gln Ala Glu Ala Gln Leu Ala Glu Leu Asp Leu Leu Ala Ser
          35          40          45
Met Phe Pro Gly Glu Asn Glu Leu Ile Val Asn Asp Gln Leu Ala Val
 50          55          60
Ala Glu Leu Lys Asp Cys Ile Glu Lys Lys Thr Met Glu Gly Arg Ser
 65          70          75          80
Ser Lys Val Tyr Phe Thr Ile Asn Met Asn Leu Asp Val Ser Asp Glu
          85          90          95
Lys Met Ala Met Phe Ser Leu Ala Cys Ile Leu Pro Phe Lys Tyr Pro
          100          105          110
Ala Val Leu Pro Glu Ile Thr Val Arg Ser Val Leu Leu Ser Arg Ser
          115          120          125
Gln Gln Thr Gln Leu Asn Thr Asp Leu Thr Ala Phe Leu Gln Lys His
 130          135          140
Cys His Gly Asp Val Cys Ile Leu Asn Ala Thr Glu Trp Val Arg Glu
 145          150          155          160
His Ala Ser Gly Tyr Val Ser Arg Asp Thr Ser Ser Ser Pro Thr Thr
          165          170          175
Gly Ser Thr Val Gln Ser Val Asp Leu Ile Phe Thr Arg Leu Trp Ile
          180          185          190
Tyr Ser His His Ile Tyr Asn Lys Cys Lys Arg Lys Asn Ile Leu Glu
 195          200          205
Trp Ala Lys Glu Leu Ser Leu Ser Gly Phe Ser Met Pro Gly Lys Pro
 210          215          220
Gly Val Val Cys Val Glu Gly Pro Gln Ser Ala Cys Glu Glu Phe Trp
 225          230          235          240
Ser Arg Leu Arg Lys Leu Asn Trp Lys Arg Ile Leu Ile Arg His Arg
          245          250          255
Glu Asp Ile Pro Phe Asp Gly Thr Asn Asp Glu Thr Glu Arg Gln Arg
          260          265          270
Lys Phe Ser Ile Phe Glu Glu Lys Val Phe Ser Val Asn Gly Ala Arg
 275          280          285
Gly Asn His Met Asp Phe Gly Gln Leu Tyr Gln Phe Leu Asn Thr Lys
 290          295          300
Gly Cys Gly Asp Val Phe Gln Met Phe Phe Gly Val Glu Gly Gln *
 305          310          315          319

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<210> 1068

<211> 744

<212> PRT

<213> Homo sapiens

<400> 1068

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Met Ala Gly Arg Ser Met Gln Ala Ala Arg Cys Pro Thr Asp Glu Leu
 1          5          10          15
Ser Leu Thr Asn Cys Ala Val Val Asn Glu Lys Asp Phe Gln Ser Gly
          20          25          30
Gln His Val Ile Val Arg Thr Ser Pro Asn His Arg Tyr Thr Phe Thr
          35          40          45
Leu Lys Thr His Pro Ser Val Val Pro Gly Ser Ile Ala Phe Ser Leu
 50          55          60
Pro Gln Arg Lys Trp Ala Gly Leu Ser Ile Gly Gln Glu Ile Glu Val
 65          70          75          80

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Ser	Leu	Tyr	Thr	Phe	Asp	Lys	Ala	Lys	Gln	Cys	Ile	Gly	Thr	Met	Thr	85	90	95
Ile	Glu	Ile	Asp	Phe	Leu	Gln	Lys	Lys	Ser	Ile	Asp	Ser	Asn	Pro	Tyr	100	105	110
Asp	Thr	Asp	Lys	Met	Ala	Ala	Glu	Phe	Ile	Gln	Gln	Phe	Asn	Asn	Gln	115	120	125
Ala	Phe	Ser	Val	Gly	Gln	Gln	Leu	Val	Phe	Ser	Phe	Asn	Glu	Lys	Leu	130	135	140
Phe	Gly	Leu	Leu	Val	Lys	Asp	Ile	Glu	Ala	Met	Asp	Pro	Ser	Ile	Leu	145	150	155
Lys	Gly	Glu	Pro	Ala	Thr	Gly	Lys	Arg	Gln	Lys	Ile	Glu	Val	Gly	Leu	165	170	175
Val	Val	Gly	Asn	Ser	Gln	Val	Ala	Phe	Glu	Lys	Ala	Glu	Asn	Ser	Ser	180	185	190
Leu	Asn	Leu	Ile	Gly	Lys	Ala	Lys	Thr	Lys	Glu	Asn	Arg	Gln	Ser	Ile	195	200	205
Ile	Asn	Pro	Asp	Trp	Asn	Phe	Glu	Lys	Met	Gly	Ile	Gly	Gly	Leu	Asp	210	215	220
Lys	Glu	Phe	Ser	Asp	Ile	Phe	Arg	Arg	Ala	Phe	Ala	Ser	Arg	Val	Phe	225	230	235
Pro	Pro	Glu	Ile	Val	Glu	Gln	Met	Gly	Cys	Lys	His	Val	Lys	Gly	Ile	245	250	255
Leu	Leu	Tyr	Gly	Pro	Pro	Gly	Cys	Gly	Lys	Thr	Leu	Leu	Ala	Arg	Gln	260	265	270
Ile	Gly	Lys	Met	Leu	Asn	Ala	Arg	Glu	Pro	Lys	Val	Val	Asn	Gly	Pro	275	280	285
Glu	Ile	Leu	Asn	Lys	Tyr	Val	Gly	Glu	Ser	Glu	Ala	Asn	Ile	Arg	Lys	290	295	300
Leu	Phe	Ala	Asp	Ala	Glu	Glu	Gln	Arg	Arg	Leu	Gly	Ala	Asn	Ser		305	310	315
Gly	Leu	His	Ile	Ile	Ile	Phe	Asp	Glu	Ile	Asp	Ala	Ile	Cys	Lys	Gln	325	330	335
Arg	Gly	Ser	Met	Ala	Gly	Ser	Thr	Gly	Val	His	Asp	Thr	Val	Val	Asn	340	345	350
Gln	Leu	Leu	Ser	Lys	Ile	Asp	Gly	Val	Glu	Gln	Leu	Asn	Asn	Ile	Leu	355	360	365
Val	Ile	Gly	Met	Thr	Asn	Arg	Pro	Asp	Leu	Ile	Asp	Glu	Ala	Leu	Leu	370	375	380
Arg	Pro	Gly	Arg	Leu	Glu	Val	Lys	Met	Glu	Ile	Gly	Leu	Pro	Asp	Glu	385	390	395
Lys	Gly	Arg	Leu	Gln	Ile	Leu	His	Ile	His	Thr	Ala	Arg	Met	Arg	Gly	405	410	415
His	Gln	Leu	Leu	Ser	Ala	Asp	Val	Asp	Ile	Lys	Glu	Leu	Ala	Val	Glu	420	425	430
Thr	Lys	Asn	Phe	Ser	Gly	Ala	Glu	Leu	Glu	Gly	Leu	Val	Arg	Ala	Ala	435	440	445
Gln	Ser	Thr	Ala	Met	Asn	Arg	His	Ile	Lys	Ala	Ser	Thr	Lys	Val	Glu	450	455	460
Val	Asp	Met	Glu	Lys	Ala	Glu	Ser	Leu	Gln	Val	Thr	Arg	Gly	Asp	Phe	465	470	475
Leu	Ala	Ser	Leu	Glu	Asn	Asp	Ile	Lys	Pro	Ala	Phe	Gly	Thr	Asn	Gln	485	490	495
Glu	Asp	Tyr	Ala	Ser	Tyr	Ile	Met	Asn	Gly	Ile	Ile	Lys	Trp	Gly	Asp	500	505	510
Pro	Val	Thr	Arg	Val	Leu	Asp	Asp	Gly	Glu	Leu	Leu	Val	Gln	Gln	Thr	515	520	525
Lys	Asn	Ser	Asp	Arg	Thr	Pro	Leu	Val	Ser	Val	Leu	Leu	Glu	Gly	Pro	530	535	540
Pro	His	Ser	Gly	Lys	Thr	Ala	Leu	Ala	Ala	Lys	Ile	Ala	Glu	Glu	Ser	545	550	555
Asn	Phe	Pro	Phe	Ile	Lys	Ile	Cys	Ser	Pro	Asp	Lys	Met	Ile	Gly	Phe	565	570	575
Ser	Glu	Thr	Ala	Lys	Cys	Gln	Ala	Met	Lys	Lys	Ile	Phe	Asp	Asp	Ala	580	585	590

Tyr Lys Ser Gln Leu Ser Cys Val Val Val Asp Asp Ile Glu Arg Leu
 595 600 605
 Leu Asp Tyr Val Pro Ile Gly Pro Arg Phe Ser Asn Leu Val Leu Gln
 610 615 620
 Ala Leu Leu Val Leu Leu Lys Lys Ala Pro Pro Gln Gly Arg Lys Leu
 625 630 635 640
 Leu Ile Ile Gly Thr Thr Ser Arg Lys Asp Val Leu Gln Glu Met Glu
 645 650 655
 Met Leu Asn Ala Phe Ser Thr Thr Ile His Val Pro Asn Ile Ala Thr
 660 665 670
 Gly Glu Gln Leu Leu Glu Ala Leu Glu Leu Leu Gly Asn Phe Lys Asp
 675 680 685
 Lys Glu Arg Thr Thr Ile Ala Gln Gln Val Lys Gly Lys Lys Val Trp
 690 695 700
 Ile Gly Ile Lys Lys Leu Leu Met Leu Ile Glu Met Ser Leu Gln Met
 705 710 715 720
 Asp Pro Glu Tyr Arg Val Arg Lys Phe Leu Ala Leu Leu Arg Glu Glu
 725 730 735
 Gly Ala Ser Pro Leu Asp Phe Asp
 740 744

<210> 1069
 <211> 291
 <212> PRT
 <213> Homo sapiens

<400> 1069
 Met Gly Asp Gly Gly Ala Glu Arg Asp Arg Gly Pro Ala Arg Arg Ala
 1 5 10 15
 Glu Ser Gly Gly Gly Gly Arg Cys Gly Asp Arg Ser Gly Ala Gly
 20 25 30
 Asp Leu Arg Ala Asp Gly Gly Gly His Ser Pro Thr Glu Val Ala Gly
 35 40 45
 Thr Ser Ala Ser Ser Pro Ala Gly Ser Arg Glu Ser Gly Ala Asp Ser
 50 55 60
 Asp Gly Gln Pro Gly Pro Gly Glu Ala Asp His Cys Arg Arg Ile Leu
 65 70 75 80
 Val Arg Asp Ala Lys Gly Thr Ile Arg Glu Ile Val Leu Pro Lys Gly
 85 90 95
 Leu Asp Leu Asp Arg Pro Lys Arg Thr Arg Thr Ser Phe Thr Ala Glu
 100 105 110
 Gln Leu Tyr Arg Leu Glu Met Glu Phe Gln Arg Cys Gln Tyr Val Val
 115 120 125
 Gly Arg Glu Arg Thr Glu Leu Ala Arg Gln Leu Asn Leu Ser Glu Thr
 130 135 140
 Gln Val Lys Val Trp Phe Gln Asn Arg Arg Thr Lys Gln Lys Lys Asp
 145 150 155 160
 Gln Ser Arg Asp Leu Glu Lys Arg Ala Ser Ser Ser Ala Ser Glu Ala
 165 170 175
 Phe Ala Thr Ser Asn Ile Leu Arg Leu Leu Glu Gln Gly Arg Leu Leu
 180 185 190
 Ser Val Pro Arg Ala Pro Ser Leu Leu Ala Leu Thr Pro Ser Leu Pro
 195 200 205
 Gly Leu Pro Ala Ser His Arg Gly Thr Ser Leu Gly Asp Pro Arg Asn
 210 215 220
 Ser Ser Pro Arg Leu Asn Pro Leu Ser Ser Ala Ser Ala Ser Pro Pro
 225 230 235 240
 Leu Pro Pro Pro Leu Pro Ala Val Cys Phe Ser Ser Ala Pro Leu Leu
 245 250 255
 Asp Leu Pro Ala Gly Tyr Glu Leu Gly Ser Ser Ala Phe Glu Pro Tyr
 260 265 270

Ser Trp Leu Glu Arg Lys Val Gly Ser Ala Ser Ser Cys Lys Lys Ala
 275 280 285
 Asn Thr *
 290

<210> 1070
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 1070
 Met Ala Cys Val Ile Ser Gly Trp Ala Leu Ser Arg Gly Ala Arg Thr
 1 5 10 15
 Trp Thr Trp Ala Thr Pro Thr Gly Pro Val His Arg Ala Gln Pro Ala
 20 25 30
 Ile Arg Ser Leu Ser Ala Glu Gly Ala Leu Thr Arg Leu Lys Glu Glu
 35 40 45
 Lys Trp Pro Gly Arg Tyr Ile Leu Pro Asn His Leu Thr Pro Pro Phe
 50 55 60
 Leu Tyr Lys His Leu Gly Ser Val Pro Pro Ser His Trp Arg Ser Pro
 65 70 75 80
 Leu Ile Ser His Ser Val Asn Ile Leu Ala Leu Asn Trp Arg
 85 90 94

<210> 1071
 <211> 364
 <212> PRT
 <213> Homo sapiens

<400> 1071
 Met Leu Arg Phe Leu Pro Asp Leu Ala Phe Ser Phe Leu Leu Ile Leu
 1 5 10 15
 Ala Leu Gly Gln Ala Val Gln Phe Gln Glu Tyr Val Phe Leu Gln Phe
 20 25 30
 Leu Gly Leu Asp Lys Ala Pro Ser Pro Gln Lys Phe Gln Pro Val Pro
 35 40 45
 Tyr Ile Leu Lys Lys Ile Phe Gln Asp Arg Glu Ala Ala Ala Thr Thr
 50 55 60
 Gly Val Ser Arg Asp Leu Cys Tyr Val Lys Glu Leu Gly Val Arg Gly
 65 70 75 80
 Asn Val Leu Arg Phe Leu Pro Asp Gln Gly Phe Phe Leu Tyr Pro Lys
 85 90 95
 Lys Ile Ser Gln Ala Ser Ser Cys Leu Gln Lys Leu Leu Tyr Phe Asn
 100 105 110
 Leu Ser Ala Ile Lys Glu Arg Glu Gln Leu Thr Leu Ala Gln Leu Gly
 115 120 125
 Leu Asp Leu Gly Pro Asn Ser Tyr Tyr Asn Leu Gly Pro Glu Leu Glu
 130 135 140
 Leu Ala Leu Phe Leu Val Gln Glu Pro His Val Trp Gly Gln Thr Asn
 145 150 155 160
 Pro Lys Pro Gly Lys Met Phe Val Leu Arg Ser Val Pro Trp Pro Gln
 165 170 175
 Gly Ala Val His Phe Asn Leu Leu Asp Val Ala Lys Asp Trp Asn Asp
 180 185 190
 Asn Pro Arg Lys Asn Phe Gly Leu Phe Leu Glu Ile Leu Val Lys Glu
 195 200 205
 Asp Arg Asp Ser Gly Val Asn Phe Gln Pro Glu Asp Thr Cys Ala Arg
 210 215 220

Leu	Arg	Cys	Ser	Leu	His	Ala	Ser	Leu	Leu	Val	Val	Thr	Leu	Asn	Pro
225					230					235					240
Asp	Gln	Cys	His	Pro	Ser	Arg	Lys	Arg	Arg	Ala	Ala	Ile	Pro	Val	Pro
				245					250						255
Lys	Leu	Ser	Cys	Lys	Asn	Leu	Cys	His	Arg	His	Gln	Leu	Phe	Ile	Asn
			260					265						270	
Phe	Arg	Asp	Leu	Gly	Trp	His	Lys	Trp	Ile	Ile	Ala	Pro	Lys	Gly	Phe
		275					280					285			
Met	Ala	Asn	Tyr	Cys	His	Gly	Glu	Cys	Pro	Phe	Ser	Leu	Thr	Ile	Ser
	290					295					300				
Leu	Asn	Ser	Ser	Asn	Tyr	Ala	Phe	Met	Gln	Ala	Leu	Met	His	Ala	Val
305					310					315					320
Asp	Pro	Glu	Ile	Pro	Gln	Ala	Val	Cys	Ile	Pro	Thr	Lys	Leu	Ser	Pro
				325					330						335
Ile	Ser	Met	Leu	Tyr	Gln	Asp	Asn	Asn	Asp	Asn	Val	Ile	Leu	Arg	His
			340					345						350	
Tyr	Glu	Asp	Met	Val	Val	Asp	Glu	Cys	Gly	Cys	Gly				
		355					360				364				

<210> 1072
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 1072

Met	Arg	Pro	Leu	Leu	Gly	Leu	Leu	Leu	Val	Phe	Ala	Gly	Cys	Thr	Phe
1				5					10					15	
Ala	Leu	Tyr	Leu	Leu	Ser	Thr	Arg	Leu	Pro	Arg	Gly	Arg	Arg	Leu	Gly
			20					25					30		
Ser	Thr	Glu	Glu	Ala	Gly	Gly	Arg	Ser	Leu	Trp	Phe	Pro	Ser	Asp	Leu
		35					40					45			
Ala	Glu	Leu	Arg	Glu	Leu	Ser	Glu	Val	Leu	Arg	Glu	Tyr	Arg	Lys	Glu
	50					55					60				
His	Gln	Ala	Tyr	Val	Phe	Leu	Leu	Phe	Cys	Gly	Ala	Tyr	Leu	Tyr	Lys
65					70					75					80
Gln	Gly	Phe	Ala	Ile	Pro	Gly	Ser	Ser	Phe	Leu	Asn	Val	Leu	Ala	Gly
			85						90					95	
Ala	Leu	Phe	Gly	Pro	Trp	Leu	Gly	Leu	Leu	Leu	Cys	Cys	Val	Leu	Thr
			100					105					110		
Ser	Val	Gly	Ala	Thr	Cys	Cys	Tyr	Leu	Leu	Ser	Ser	Ile	Phe	Gly	Lys
		115					120					125			
Gln	Leu	Val	Val	Ser	Tyr	Phe	Pro	Asp	Lys	Val	Ala	Leu	Leu	Gln	Arg
	130					135					140				
Lys	Val	Glu	Glu	Asn	Arg	Asn	Ser	Leu	Phe	Phe	Phe	Leu	Leu	Phe	Leu
145					150					155					160
Arg	Leu	Phe	Pro	Met	Thr	Pro	Asn	Trp	Phe	Leu	Asn	Leu	Ser	Ala	Pro
			165					170						175	
Ile	Leu	Asn	Ile	Pro	Ile	Val	Gln	Phe	Phe	Phe	Ser	Val	Leu	Ile	Gly
			180					185					190		
Leu	Ile	Pro	Tyr	Asn	Phe	Ile	Cys	Val	Gln	Thr	Gly	Ser	Ile	Leu	Ser
		195					200					205			
Thr	Leu	Thr	Ser	Leu	Asp	Ala	Leu	Phe	Ser	Trp	Asp	Thr	Val	Phe	Lys
	210					215					220				
Leu	Leu	Ala	Ile	Ala	Met	Val	Ala	Leu	Ile	Pro	Gly	Thr	Leu	Ile	Lys
225					230					235					240
Lys	Phe	Ser	Gln	Lys	His	Leu	Gln	Leu	Asn	Glu	Thr	Ser	Thr	Ala	Asn
			245						250					255	
His	Ile	His	Ser	Arg	Lys	Asp	Thr								
			260				264								

<210> 1073
 <211> 226
 <212> PRT
 <213> Homo sapiens

<400> 1073
 Met Ser Arg Pro Arg Lys Arg Leu Ala Gly Thr Ser Gly Ser Asp Lys
 1 5 10 15
 Gly Leu Ser Gly Lys Arg Thr Lys Thr Glu Asn Ser Gly Glu Ala Leu
 20 25 30
 Ala Lys Val Glu Asp Ser Asn Pro Gln Lys Thr Ser Ala Thr Lys Asn
 35 40 45
 Cys Leu Lys Asn Leu Ser Ser His Trp Leu Met Lys Ser Glu Pro Glu
 50 55 60
 Ser Arg Leu Glu Lys Gly Val Asp Val Lys Phe Ser Ile Glu Asp Leu
 65 70 75 80
 Lys Ala Gln Pro Lys Gln Thr Thr Cys Trp Asp Gly Val Arg Asn Tyr
 85 90 95
 Gln Ala Arg Asn Phe Leu Arg Ala Met Lys Leu Gly Glu Glu Ala Phe
 100 105 110
 Phe Tyr His Ser Asn Cys Lys Glu Pro Gly Ile Ala Gly Leu Met Lys
 115 120 125
 Ile Val Lys Glu Ala Tyr Pro Asp His Thr Gln Phe Glu Lys Asn Asn
 130 135 140
 Pro His Tyr Asp Pro Ser Ser Lys Glu Asp Asn Pro Lys Trp Ser Met
 145 150 155 160
 Val Asp Val Gln Phe Val Arg Met Met Lys Arg Phe Ile Pro Leu Ala
 165 170 175
 Glu Leu Lys Ser Tyr His Gln Ala His Lys Ala Thr Gly Gly Pro Leu
 180 185 190
 Lys Asn Met Val Leu Phe Thr Arg Gln Arg Leu Ser Ile Gln Pro Leu
 195 200 205
 Thr Gln Glu Glu Phe Asp Phe Val Leu Ser Leu Glu Glu Lys Glu Pro
 210 215 220
 Ser *
 225

<210> 1074
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 1074
 Met Ser Arg Pro Arg Lys Arg Leu Ala Gly Thr Ser Gly Ser Asp Lys
 1 5 10 15
 Gly Leu Ser Gly Lys Arg Thr Lys Thr Glu Asn Ser Gly Glu Ala Leu
 20 25 30
 Ala Lys Val Glu Asp Ser Asn Pro Gln Lys Thr Ser Ala Thr Lys Asn
 35 40 45
 Cys Leu Lys Asn Leu Ser Ser His Trp Leu Met Lys Ser Glu Pro Glu
 50 55 60
 Ser Arg Leu Glu Lys Gly Val Asp Val Lys Phe Ser Ile Glu Asp Leu
 65 70 75 80
 Lys Ala Gln Pro Lys Gln Thr Thr Cys Trp Asp Gly Val Arg Asn Tyr
 85 90 95
 Gln Ala Arg Asn Phe Leu Arg Ala Met Lys Leu Gly Glu Glu Ala Phe
 100 105 110
 Phe Tyr His Ser Asn Cys Lys Glu Pro Gly Ile Ala Gly Leu Met Lys
 115 120 125

Ile	Val	Lys	Glu	Ala	Tyr	Pro	Asp	His	Thr	Gln	Phe	Glu	Lys	Asn	Asn
130						135					140				
Pro	His	Tyr	Asp	Pro	Ser	Ser	Lys	Glu	Asp	Asn	Pro	Lys	Trp	Ser	Met
145					150					155					160
Arg	Leu	Ser	Ile	Gln	Pro	Leu	Thr	Gln	Glu	Glu	Phe	Asp	Phe	Val	Leu
				165					170					175	
Ser	Leu	Glu	Glu	Lys	Glu	Pro	Ser	*							
			180				184								

<210> 1075
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 1075

Met	Gly	Ser	Phe	Gln	Leu	Glu	Asp	Phe	Ala	Ala	Gly	Trp	Ile	Gly	Gly
1				5					10					15	
Ala	Ala	Ser	Val	Ile	Val	Gly	His	Pro	Leu	Asp	Thr	Val	Lys	Thr	Arg
			20				25						30		
Leu	Gln	Ala	Gly	Val	Gly	Tyr	Gly	Asn	Thr	Leu	Ser	Cys	Ile	Arg	Val
		35					40					45			
Val	Tyr	Arg	Arg	Glu	Ser	Met	Phe	Gly	Phe	Phe	Lys	Gly	Met	Ser	Phe
	50					55					60				
Pro	Leu	Ala	Ser	Ile	Ala	Val	Tyr	Asn	Ser	Val	Val	Phe	Gly	Val	Phe
	65				70					75					80
Ser	Asn	Thr	Gln	Arg	Phe	Leu	Ser	Gln	His	Arg	Cys	Gly	Glu	Pro	Glu
			85					90					95		
Ala	Ser	Pro	Pro	Arg	Thr	Leu	Ser	Asp	Leu	Leu	Leu	Ala	Ser	Met	Val
			100					105					110		
Ala	Gly	Val	Val	Ser	Val	Gly	Leu	Gly	Gly	Pro	Val	Asp	Leu	Ile	Lys
		115					120					125			
Ile	Arg	Leu	Gln	Met	Gln	Thr	Gln	Pro	Phe	Arg	Asp	Ala	Asn	Leu	Gly
	130					135					140				
Leu	Lys	Ser	Arg	Ala	Val	Ala	Pro	Ala	Glu	Gln	Pro	Ala	Tyr	Gln	Gly
	145				150					155					160
Pro	Val	His	Cys	Ile	Thr	Thr	Ile	Val	Arg	Asn	Glu	Gly	Leu	Ala	Gly
				165					170					175	
Leu	Tyr	Arg	Gly	Ala	Ser	Ala	Met	Leu	Leu	Arg	Asp	Val	Pro	Gly	Tyr
			180				185						190		
Cys	Leu	Tyr	Phe	Ile	Pro	Tyr	Val	Phe	Leu	Ser	Glu	Trp	Ile	Thr	Pro
		195				200						205			
Glu	Ala	Cys	Thr	Gly	Pro	Ser	Pro	Cys	Ala	Val	Trp	Leu	Ala	Gly	Gly
	210					215					220				
Met	Ala	Gly	Ala	Ile	Ser	Trp	Gly	Thr	Ala	Thr	Pro	Met	Asp	Val	Val
	225				230					235					240
Lys	Ser	Arg	Leu	Gln	Ala	Asp	Gly	Val	Tyr	Leu	Asn	Lys	Tyr	Lys	Gly
				245					250					255	
Val	Leu	Asp	Cys	Ile	Ser	Gln	Ser	Tyr	Gln	Lys	Glu	Gly	Leu	Lys	Val
			260					265					270		
Phe	Phe	Arg	Gly	Ile	Thr	Val	Asn	Ala	Val	Arg	Gly	Phe	Pro	Met	Ser
		275				280						285			
Ala	Ala	Met	Phe	Leu	Gly	Tyr	Glu	Leu	Ser	Leu	Gln	Ala	Ile	Arg	Gly
	290					295					300				
Asp	His	Ala	Val	Thr	Ser	Pro									
305					310	311									

<210> 1076
 <211> 419
 <212> PRT

<213> Homo sapiens

<400> 1076

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Met Pro Ala Arg Ala Gly Ala Trp Ala Glu Thr Pro Glu Pro Leu Tyr
 1           5           10           15
Gln Ser Pro Arg Lys Asn Ser Gln Gln Cys Leu Val Arg Pro Cys Phe
           20           25           30
His Gly Val Leu Leu Leu Gly Lys Gly Thr Gly Gly Asn Tyr Thr Phe
           35           40           45
Arg Leu Trp Gln Gly Pro Trp Arg Cys Arg Arg Pro Gln Pro Met Ala
           50           55           60
Gln Arg Tyr Asp Glu Leu Pro His Tyr Pro Gly Ile Ala Asp Gly Pro
           65           70           75           80
Ala Ala Leu Ala Gly Phe Pro Glu Ala Val Pro Ala Ala Pro Gly Pro
           85           90           95
Tyr Gly Pro His Arg Pro Pro Gln Pro Leu Pro Pro Gly Leu Asp Ser
           100          105          110
Asp Gly Leu Lys Arg Asp Lys Asp Glu Ile Tyr Gly His Pro Leu Phe
           115          120          125
Pro Leu Leu Ala Leu Val Phe Glu Lys Cys Glu Leu Ala Thr Cys Ser
           130          135          140
Pro Arg Asp Gly Ala Gly Ala Gly Leu Gly Thr Pro Arg Gly Gly Asp
           145          150          155          160
Val Cys Ser Ser Asp Ser Phe Asn Glu Asp Asn Thr Ala Phe Ala Lys
           165          170          175
Gln Val Cys Ser Glu Arg Pro Phe Ser Ser Asn Pro Glu Leu Asp Asn
           180          185          190
Leu Met Ile Gln Ala Ile Gln Val Leu Arg Phe His Leu Leu Glu Leu
           195          200          205
Glu Lys Gly Lys Met Pro Ile Asp Leu Val Ile Glu Asp Arg Asp Gly
           210          215          220
Gly Cys Arg Glu Asp Phe Glu Asp Tyr Pro Ala Ser Cys Pro Ser Leu
           225          230          235          240
Pro Asp Gln Asn Asn Ile Trp Ile Arg Asp His Glu Asp Ser Gly Ser
           245          250          255
Val His Leu Gly Thr Pro Gly Pro Ser Ser Gly Gly Leu Ala Ser Gln
           260          265          270
Ser Gly Asp Asn Ser Ser Asp Gln Gly Val Gly Leu Asp Thr Ser Val
           275          280          285
Ala Ser Pro Ser Ser Gly Gly Glu Asp Glu Asp Leu Asp Gln Glu Pro
           290          295          300
Arg Arg Asn Lys Lys Arg Gly Ile Phe Pro Lys Val Ala Thr Asn Ile
           305          310          315          320
Met Arg Ala Trp Leu Phe Gln His Leu Ser His Pro Tyr Pro Ser Glu
           325          330          335
Glu Gln Lys Lys Gln Leu Ala Gln Asp Thr Gly Leu Thr Ile Leu Gln
           340          345          350
Val Asn Asn Trp Phe Ile Asn Ala Arg Arg Arg Ile Val Gln Pro Met
           355          360          365
Ile Asp Gln Ser Asn Arg Thr Gly Gln Gly Ala Ala Phe Ser Pro Glu
           370          375          380
Gly Gln Pro Ile Gly Gly Tyr Thr Glu Thr Glu Pro His Val Ala Phe
           385          390          395          400
Arg Ala Pro Ala Ser Val Gly Met Ser Leu Asn Ser Glu Gly Glu Trp
           405          410          415
His Tyr Leu
           419

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<210> 1077

<211> 260

<212> PRT

<213> Homo sapiens

<400> 1077

```

Met Val Ser His Pro His Pro Pro Pro Ser Pro Arg Trp Gly Gln Thr
 1          5          10          15
Pro Glu Gly Leu Pro Ala Ala Ser Pro Cys Gly Pro Gly Pro Arg Ser
      20          25          30
Cys Phe Ser Ser Ile Leu Pro Thr Gly Asp Ser Trp Gly Met Leu Ala
      35          40          45
Cys Leu Cys Thr Val Leu Trp His Leu Pro Ala Val Pro Ala Leu Asn
      50          55          60
Arg Thr Gly Asp Pro Gly Pro Gly Pro Ser Ile Gln Lys Thr Tyr Asp
      65          70          75          80
Pro Thr Arg Tyr Leu Glu His Gln Leu Arg Ser Leu Ala Gly Thr Tyr
      85          90          95
Leu Asn Tyr Leu Gly Pro Pro Phe Asn Glu Pro Asp Phe Asn Pro Pro
      100          105          110
Arg Leu Gly Ala Glu Thr Leu Pro Arg Ala Thr Val Asp Leu Glu Val
      115          120          125
Trp Arg Ser Leu Asn Asp Lys Leu Arg Leu Thr Gln Asn Tyr Glu Ala
      130          135          140
Tyr Ser His Leu Leu Cys Tyr Leu Arg Gly Leu Asn Arg Gln Ala Ala
      145          150          155          160
Thr Ala Glu Leu Arg Arg Ser Leu Ala His Phe Cys Thr Ser Leu Gln
      165          170          175
Gly Leu Leu Gly Ser Ile Ala Gly Val Met Ala Ala Leu Gly Tyr Pro
      180          185          190
Leu Pro Gln Pro Leu Pro Gly Thr Glu Pro Thr Trp Thr Pro Gly Pro
      195          200          205
Ala His Ser Asp Phe Leu Gln Lys Met Asp Asp Phe Trp Leu Leu Lys
      210          215          220
Glu Leu Gln Thr Trp Leu Trp Arg Ser Ala Lys Asp Phe Asn Arg Leu
      225          230          235          240
Lys Lys Lys Met Gln Pro Pro Ala Ala Ala Val Thr Leu His Leu Gly
      245          250          255
Ala His Gly Phe
      260

```

<210> 1078

<211> 132

<212> PRT

<213> Homo sapiens

<400> 1078

```

Met Tyr Ala Tyr Met Tyr Ile Cys Thr His Ile Cys Ile Cys Ala Tyr
 1          5          10          15
Arg Gly Ile His Ile Asp Val Tyr Leu Tyr Met Cys Ile Tyr Ile His
      20          25          30
Ile Trp Ile His Thr Tyr Leu Cys Val His Ile Tyr Val Tyr Val Tyr
      35          40          45
Ile Cys Thr His Ile Cys Met Cys Ile His Thr Tyr Val Tyr Val Tyr
      50          55          60
Thr Tyr Met Tyr Val Tyr Thr Tyr Ile Cys Leu Cys Val Tyr Ile Cys
      65          70          75          80
Leu Cys Val His Ile Tyr Leu Cys Val Tyr Ile His Met Tyr Met Cys
      85          90          95
Thr His Ile Cys Met Cys Ile His Thr Tyr Val His Met Cys Ile Cys
      100          105          110
Val Tyr Ile His Met Tyr Thr Cys Val Tyr Val Tyr Thr Tyr Thr Cys
      115          120          125

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Val Tyr Met Tyr
130 132

<210> 1079
<211> 248
<212> PRT
<213> Homo sapiens

<400> 1079
Met Arg Gly Glu Glu Glu Val Ala Pro Val Thr Leu Cys Ser Leu Tyr
1 5 10 15
Thr Tyr Asp Gln Gly Asp Ser Leu Asp Leu Leu Gly Pro Ile Gly Ile
20 25 30
Leu Gln Glu Gly Arg Asp Pro Gly Thr Gln Gly Pro Gln Glu Lys Glu
35 40 45
Lys Gln Met Pro Ala Ser Pro Met Asn Thr Asp Ala His Leu Asp Ile
50 55 60
Asn Phe Lys Glu Gly Leu Lys Lys Glu Arg Ser Tyr Thr Gly Gln Phe
65 70 75 80
Glu Ala Asn Val Arg Asp Glu Glu Arg Gln Cys Gly Cys Gly Val Val
85 90 95
Pro Asp Ser Leu Leu Met Lys Val Leu Ser Gln Arg Leu Asp Gln Gln
100 105 110
Asp Cys Ile Gln Lys Gly Trp Val Leu His Gly Val Pro Arg Asp Leu
115 120 125
Asp Gln Ala His Leu Leu Asn Arg Leu Gly Tyr Asn Pro Asn Arg Val
130 135 140
Phe Phe Leu Asn Val Pro Phe Asp Ser Ile Met Glu Arg Leu Thr Leu
145 150 155 160
Arg Arg Ile Asp Pro Val Thr Gly Glu Arg Tyr His Leu Met Tyr Lys
165 170 175
Pro Pro Pro Thr Met Glu Ile Gln Ala Arg Leu Leu Gln Asn Pro Lys
180 185 190
Asp Ala Glu Glu Gln Val Lys Leu Lys Met Asp Leu Phe Tyr Arg Asn
195 200 205
Ser Ala Asp Leu Glu Gln Leu Tyr Gly Ser Ala Ile Thr Leu Asn Gly
210 215 220
Asp Gln Asp Pro Tyr Thr Val Phe Glu Tyr Ile Glu Ser Gly Ile Ile
225 230 235 240
Asn Pro Leu Pro Lys Lys Ile Pro
245 248

<210> 1080
<211> 387
<212> PRT
<213> Homo sapiens

<400> 1080
Met Thr Ser His Ala Arg Val Arg Lys Leu Gly Ser Ser Arg Ala Ala
1 5 10 15
Ala Ala Gly Pro Gly Ala Gly Gln Glu Val Gln Thr Glu Asn Val Thr
20 25 30
Val Ala Glu Gly Gly Val Ala Glu Ile Thr Cys Arg Leu His Gln Tyr
35 40 45
Asp Gly Ser Ile Val Val Ile Gln Asn Pro Ala Arg Gln Thr Leu Phe
50 55 60
Phe Asn Gly Thr Arg Ala Leu Lys Asp Glu Arg Phe Gln Leu Glu Glu
65 70 75 80

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<210> 1081
<211> 750
<212> PRT
<213> Homo sapiens
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<400> 1081																
Met	Ala	Ala	Ala	Gly	Ser	Arg	Lys	Arg	Arg	Leu	Ala	Glu	Leu	Thr	Val	
1				5					10					15		
Asp	Glu	Phe	Leu	Ala	Ser	Gly	Phe	Asp	Ser	Glu	Ser	Glu	Ser	Glu	Ser	
			20					25					30			
Glu	Asn	Ser	Pro	Gln	Ala	Glu	Thr	Arg	Glu	Ala	Arg	Glu	Ala	Ala	Arg	
		35					40					45				
Ser	Pro	Asp	Lys	Pro	Gly	Gly	Ser	Pro	Ser	Ala	Ser	Arg	Arg	Lys	Gly	
	50					55					60					
Arg	Ala	Ser	Glu	His	Lys	Asp	Gln	Leu	Ser	Arg	Leu	Lys	Asp	Arg	Asp	
65					70					75					80	
Pro	Glu	Phe	Tyr	Lys	Phe	Leu	Gln	Glu	Asn	Asp	Gln	Ser	Leu	Leu	Asn	
				85					90					95		
Phe	Ser	Asp	Ser	Asp	Ser	Ser	Glu	Glu	Glu	Glu	Gly	Pro	Phe	His	Ser	
			100					105					110			

2825

Leu Arg Asp Arg Glu Ile Gln Leu Glu Ile Ser Gly Lys Glu Arg Leu
 625 630 635 640
 Glu Asp Leu Asn Phe Pro Glu Ile Lys Arg Arg Lys Met Ala Asp Arg
 645 650 655
 Lys Asp Glu Asp Arg Lys Gln Phe Lys Asp Leu Phe Asp Leu Asn Ser
 660 665 670
 Ser Glu Glu Asp Asp Thr Glu Gly Phe Ser Glu Arg Gly Ile Leu Arg
 675 680 685
 Pro Leu Ser Thr Arg His Gly Val Glu Asp Asp Glu Glu Asp Glu Glu
 690 695 700
 Glu Gly Glu Glu Asp Ser Ser Asn Ser Glu Asp Gly Asp Pro Asp Ala
 705 710 715 720
 Glu Ala Gly Leu Ala Pro Gly Glu Leu Gln Gln Leu Ala Gln Gly Pro
 725 730 735
 Glu Asp Glu Leu Glu Asp Leu Gln Leu Ser Glu Asp Asp *
 740 745 749

<210> 1082
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 1082
 His Leu Asp Arg Tyr Ile Lys Ser Pro Gly Ser Gly Ser Ser Thr Pro
 1 5 10 15
 Ala Pro Pro Ser His Leu Leu Leu Tyr Leu Ile His Pro Gln Ser Thr
 20 25 30
 Arg Thr Met Gly Cys Cys Gly Cys Ser Gly Gly Cys Gly Ser Gly Cys
 35 40 45
 Gly Gly Cys Gly Ser Ser Cys Gly Gly Cys Gly Ser Gly Cys Gly Gly
 50 55 60
 Cys Gly Ser Gly Arg Gly Gly Cys Gly Ser Gly Cys Gly Gly Cys Ser
 65 70 75 80
 Ser Ser Cys Gly Gly Cys Gly Ser Arg Cys Tyr Val Pro Val Cys Cys
 85 90 95
 Cys Lys Pro Val Cys Ser Trp Val Pro Ala Cys Ser Cys Thr Ser Cys
 100 105 110
 Gly Ser Cys Gly Gly Ser Lys Gly Gly Cys Gly Ser Cys Gly Gly Ser
 115 120 125
 Lys Gly Gly Cys Gly Ser Cys Gly Cys Ser Gln Ser Ser Cys Cys Lys
 130 135 140
 Pro Cys Cys Cys Ser Ser Gly Cys Gly Ser
 145 150 154

<210> 1083
 <211> 1340
 <212> PRT
 <213> Homo sapiens

<400> 1083
 Ala Gly Ile Phe Glu Leu Val Glu Leu Val Gly Asn Gly Thr Tyr Gly
 1 5 10 15
 Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly Gln Leu Ala Ala Ile
 20 25 30
 Lys Val Met Asp Val Thr Gly Asp Glu Glu Glu Glu Ile Lys Gln Glu
 35 40 45
 Ile Asn Met Leu Lys Lys Tyr Ser His His Arg Asn Ile Ala Thr Tyr
 50 55 60

Tyr	Gly	Ala	Phe	Ile	Lys	Lys	Asn	Pro	Pro	Gly	Met	Asp	Asp	Gln	Leu
65					70					75					80
Trp	Leu	Val	Met	Glu	Phe	Cys	Gly	Ala	Gly	Ser	Val	Thr	Asp	Leu	Ile
				85					90					95	
Lys	Asn	Thr	Lys	Gly	Tyr	Thr	Leu	Lys	Glu	Glu	Trp	Ile	Ala	Tyr	Ile
			100					105					110		
Cys	Arg	Glu	Ile	Leu	Arg	Gly	Leu	Ser	His	Leu	His	Gln	His	Lys	Val
		115					120					125			
Ile	His	Arg	Asp	Ile	Lys	Gly	Gln	Asn	Val	Leu	Leu	Thr	Glu	Asn	Ala
		130				135						140			
Glu	Val	Lys	Leu	Val	Asp	Phe	Gly	Val	Ser	Ala	Gln	Leu	Asp	Arg	Thr
145					150					155					160
Val	Gly	Arg	Arg	Asn	Thr	Phe	Ile	Gly	Thr	Pro	Tyr	Trp	Met	Ala	Pro
				165					170					175	
Glu	Val	Ile	Ala	Cys	Asp	Glu	Asn	Pro	Asp	Ala	Thr	Tyr	Asp	Phe	Lys
			180					185					190		
Ser	Asp	Leu	Trp	Ser	Leu	Gly	Ile	Thr	Ala	Ile	Glu	Met	Ala	Glu	Gly
		195					200					205			
Ala	Pro	Pro	Leu	Cys	Asp	Met	His	Pro	Met	Arg	Ala	Leu	Phe	Leu	Ile
			210			215					220				
Pro	Arg	Asn	Pro	Ala	Pro	Arg	Leu	Lys	Ser	Lys	Lys	Trp	Ser	Lys	Lys
225					230					235					240
Phe	Gln	Ser	Phe	Ile	Glu	Ser	Cys	Leu	Val	Lys	Asn	His	Ser	Gln	Arg
				245					250					255	
Pro	Ala	Thr	Glu	Gln	Leu	Met	Lys	His	Pro	Phe	Ile	Arg	Asp	Gln	Pro
			260					265					270		
Asn	Glu	Arg	Gln	Val	Arg	Ile	Gln	Leu	Lys	Asp	His	Ile	Asp	Arg	Thr
		275					280					285			
Lys	Lys	Lys	Arg	Gly	Glu	Lys	Asp	Glu	Thr	Glu	Tyr	Glu	Tyr	Ser	Gly
		290				295					300				
Ser	Glu	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Ser	Gly	Glu	Pro	Ser	Ser	Ile
305					310					315					320
Leu	Asn	Leu	Pro	Gly	Glu	Ser	Thr	Leu	Arg	Arg	Asp	Phe	Leu	Arg	Leu
				325					330					335	
Gln	Leu	Ala	Asn	Lys	Glu	Arg	Ser	Glu	Ala	Leu	Arg	Arg	Gln	Gln	Leu
			340					345					350		
Glu	Gln	Gln	Gln	Arg	Glu	Asn	Glu	Glu	His	Lys	Arg	Gln	Leu	Leu	Ala
		355					360					365			
Glu	Arg	Gln	Lys	Arg	Ile	Glu	Glu	Gln	Lys	Glu	Gln	Arg	Arg	Arg	Leu
		370				375					380				
Glu	Glu	Gln	Gln	Arg	Arg	Glu	Lys	Glu	Leu	Arg	Lys	Gln	Gln	Glu	Arg
385					390					395					400
Glu	Gln	Arg	Arg	His	Tyr	Glu	Glu	Gln	Met	Arg	Arg	Glu	Glu	Glu	Arg
				405					410					415	
Arg	Arg	Ala	Glu	His	Glu	Gln	Glu	Tyr	Ile	Arg	Arg	Gln	Leu	Glu	Glu
			420					425					430		
Glu	Gln	Arg	Gln	Leu	Glu	Ile	Leu	Gln	Gln	Gln	Leu	Leu	His	Glu	Gln
		435					440					445			
Ala	Leu	Leu	Leu	Glu	Tyr	Lys	Arg	Lys	Gln	Leu	Glu	Glu	Gln	Arg	Gln
						455					460				
Ala	Glu	Arg	Leu	Gln	Arg	Gln	Leu	Lys	Gln	Glu	Arg	Asp	Tyr	Leu	Val
465					470					475					480
Ser	Leu	Gln	His	Gln	Arg	Gln	Glu	Gln	Arg	Pro	Val	Glu	Lys	Lys	Pro
				485					490					495	
Leu	Tyr	His	Tyr	Lys	Glu	Gly	Met	Ser	Pro	Ser	Glu	Lys	Pro	Ala	Trp
			500					505					510		
Ala	Lys	Glu	Val	Glu	Glu	Arg	Ser	Arg	Leu	Asn	Arg	Gln	Ser	Ser	Pro
		515					520					525			
Ala	Met	Pro	His	Lys	Val	Ala	Asn	Arg	Ile	Ser	Asp	Pro	Asn	Leu	Pro
						535					540				
Pro	Arg	Ser	Glu	Ser	Phe	Ser	Ile	Ser	Gly	Val	Gln	Pro	Ala	Arg	Thr
545					550					555					560
Pro	Pro	Met	Leu	Arg	Pro	Val	Asp	Pro	Gln	Ile	Pro	His	Leu	Val	Ala
				565					570					575	

Val	Lys	Ser	Gln	Gly	Pro	Ala	Leu	Thr	Ala	Ser	Gln	Ser	Val	His	Glu
			580					585					590		
Gln	Pro	Thr	Lys	Gly	Leu	Ser	Gly	Phe	Gln	Glu	Ala	Leu	Asn	Val	Thr
		595					600					605			
Ser	His	Arg	Val	Glu	Met	Pro	Arg	Gln	Asn	Ser	Asp	Pro	Thr	Ser	Glu
	610					615					620				
Asn	Pro	Pro	Leu	Pro	Thr	Arg	Ile	Glu	Lys	Phe	Asp	Arg	Ser	Ser	Trp
625					630					635					640
Leu	Arg	Gln	Lys	Glu	Asp	Ile	Pro	Pro	Lys	Val	Pro	Gln	Arg	Thr	Thr
			645						650					655	
Ser	Ile	Ser	Pro	Ala	Leu	Ala	Arg	Lys	Asn	Ser	Pro	Gly	Asn	Gly	Ser
			660					665					670		
Ala	Leu	Gly	Pro	Arg	Leu	Gly	Ser	Gln	Pro	Ile	Arg	Ala	Ser	Asn	Pro
		675					680					685			
Asp	Leu	Arg	Arg	Thr	Glu	Pro	Ile	Leu	Glu	Ser	Pro	Leu	Gln	Arg	Thr
	690					695					700				
Ser	Ser	Gly	Ser	Ser	Ser	Ser	Ser	Ser	Thr	Pro	Ser	Ser	Gln	Pro	Ser
705					710					715				720	
Ser	Gln	Gly	Gly	Ser	Gln	Pro	Gly	Ser	Gln	Ala	Gly	Ser	Ser	Glu	Arg
			725						730					735	
Thr	Arg	Val	Arg	Ala	Asn	Ser	Lys	Ser	Glu	Gly	Ser	Pro	Val	Leu	Pro
			740					745					750		
His	Glu	Pro	Ala	Lys	Val	Lys	Pro	Glu	Glu	Ser	Arg	Asp	Ile	Thr	Arg
		755					760					765			
Pro	Ser	Arg	Pro	Ala	Ser	Tyr	Lys	Lys	Ala	Ile	Asp	Glu	Asp	Leu	Thr
	770					775					780				
Ala	Leu	Ala	Lys	Glu	Leu	Arg	Glu	Leu	Arg	Ile	Glu	Glu	Thr	Asn	Arg
785					790					795					800
Pro	Met	Lys	Lys	Val	Thr	Asp	Tyr	Ser	Ser	Ser	Ser	Glu	Glu	Ser	Glu
			805						810					815	
Ser	Ser	Glu	Glu	Glu	Glu	Glu	Asp	Gly	Glu	Ser	Glu	Thr	His	Asp	Gly
			820					825					830		
Thr	Val	Ala	Val	Ser	Asp	Ile	Pro	Arg	Leu	Ile	Pro	Thr	Gly	Ala	Pro
		835					840					845			
Gly	Ser	Asn	Glu	Gln	Tyr	Asn	Val	Gly	Met	Val	Gly	Thr	His	Gly	Leu
	850					855					860				
Glu	Thr	Ser	His	Ala	Asp	Ser	Phe	Ser	Gly	Ser	Ile	Ser	Arg	Glu	Gly
865					870					875					880
Thr	Leu	Met	Ile	Arg	Glu	Thr	Ser	Gly	Glu	Lys	Lys	Arg	Ser	Gly	His
				885					890					895	
Ser	Asp	Ser	Asn	Gly	Phe	Ala	Gly	His	Ile	Asn	Leu	Pro	Asp	Leu	Val
			900					905					910		
Gln	Gln	Ser	His	Ser	Pro	Ala	Gly	Thr	Pro	Thr	Glu	Gly	Leu	Gly	Arg
		915					920					925			
Val	Ser	Thr	His	Ser	Gln	Glu	Met	Asp	Ser	Gly	Thr	Glu	Tyr	Gly	Met
		930				935					940				
Gly	Ser	Ser	Thr	Lys	Ala	Ser	Phe	Thr	Pro	Phe	Val	Asp	Pro	Arg	Val
945					950					955					960
Tyr	Gln	Thr	Ser	Pro	Thr	Asp	Glu	Asp	Glu	Glu	Asp	Glu	Glu	Ser	Ser
				965					970					975	
Ala	Ala	Ala	Leu	Phe	Thr	Ser	Glu	Leu	Leu	Arg	Gln	Glu	Gln	Ala	Lys
			980					985					990		
Leu	Asn	Glu	Ala	Arg	Lys	Ile	Ser	Val	Val	Asn	Val	Asn	Pro	Thr	Asn
			995				1000					1005			
Ile	Arg	Pro	His	Ser	Asp	Thr	Pro	Glu	Ile	Arg	Lys	Tyr	Lys	Lys	Arg
	1010					1015					1020				
Phe	Asn	Ser	Glu	Ile	Leu	Cys	Ala	Ala	Leu	Trp	Gly	Val	Asn	Leu	Leu
1025					1030					1035					1040
Val	Gly	Thr	Glu	Asn	Gly	Leu	Met	Leu	Leu	Asp	Arg	Ser	Gly	Gln	Gly
				1045					1050					1055	
Lys	Val	Tyr	Asn	Leu	Ile	Asn	Arg	Arg	Arg	Phe	Gln	Gln	Met	Asp	Val
			1060				1065						1070		
Leu	Glu	Gly	Leu	Asn	Val	Leu	Val	Thr	Ile	Ser	Gly	Lys	Lys	Asn	Lys
			1075				1080					1085			

Leu Arg Val Tyr Tyr Leu Ser Trp Leu Arg Asn Arg Ile Leu His Asn
 1090 1095 1100
 Asp Pro Glu Val Glu Lys Lys Gln Gly Trp Ile Thr Val Gly Asp Leu
 1105 1110 1115 1120
 Glu Gly Cys Ile His Tyr Lys Val Val Lys Tyr Glu Arg Ile Lys Phe
 1125 1130 1135
 Leu Val Ile Ala Leu Lys Asn Ala Val Glu Ile Tyr Ala Trp Ala Pro
 1140 1145 1150
 Lys Pro Tyr His Lys Phe Met Ala Phe Lys Ser Phe Ala Asp Leu Gln
 1155 1160 1165
 His Lys Pro Leu Leu Val Asp Leu Thr Val Glu Glu Gly Gln Arg Leu
 1170 1175 1180
 Lys Val Ile Phe Gly Ser His Thr Gly Phe His Val Ile Asp Val Asp
 1185 1190 1195 1200
 Ser Gly Asn Ser Tyr Asp Ile Tyr Ile Pro Ser His Ile Gln Gly Asn
 1205 1210 1215
 Ile Thr Pro His Ala Ile Val Ile Leu Pro Lys Thr Asp Gly Met Glu
 1220 1225 1230
 Met Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr Gly
 1235 1240 1245
 Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro Thr Ser
 1250 1255 1260
 Val Ala Tyr Ile His Ser Asn Gln Ile Met Gly Trp Gly Glu Lys Ala
 1265 1270 1275 1280
 Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val Phe Met
 1285 1290 1295
 His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn Asp Lys
 1300 1305 1310
 Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val Phe Phe
 1315 1320 1325
 Met Thr Leu Asn Arg Asn Ser Met Met Asn Trp *
 1330 1335 1339

<210> 1084

<211> 206

<212> PRT

<213> Homo sapiens

<400> 1084

Met Gly Gln Val Glu Cys Gly Gly Gln Lys Leu Gly Asn Gln Leu Glu
 1 5 10 15
 Asp Asp Ser Glu Pro Ala Glu Gly Lys Val Tyr Ser Ser Asp Glu Glu
 20 25 30
 Lys Leu Glu Ala Ser Ala Gly Asp Pro Ala Gly Ser Glu Gln Glu Glu
 35 40 45
 Glu Gly Ser Gly Gly Asp Ser Glu Asp Asp Gly Phe Leu Asp Ser Ser
 50 55 60
 Ala Gly Gly Pro Gly Ala Leu Leu Gly Pro Lys Pro Lys Leu Lys Gly
 65 70 75 80
 Ser Leu Gly Thr Gly Ala Glu Glu Gly Ala Pro Val Thr Ala Gly Val
 85 90 95
 Thr Ala Pro Gly Lys Ser Arg Arg Arg Thr Ala Phe Thr Ser
 100 105 110
 Glu Gln Leu Leu Glu Leu Glu Lys Glu Phe His Cys Lys Lys Tyr Leu
 115 120 125
 Ser Leu Thr Glu Arg Ser Gln Ile Ala His Ala Leu Lys Leu Ser Glu
 130 135 140
 Val Gln Val Lys Ile Trp Phe Gln Asn Arg Arg Ala Lys Trp Lys Arg
 145 150 155 160
 Ile Lys Ala Gly Asn Val Ser Ser Arg Ser Gly Glu Pro Val Arg Asn
 165 170 175

Pro	Lys	Ile	Val	Val	Pro	Ile	Pro	Val	His	Val	Asn	Arg	Phe	Ala	Val
			180					185					190		
Arg	Ser	Gln	His	Gln	Gln	Met	Glu	Gln	Gly	Ala	Arg	Pro	*		
		195					200					205			

<210> 1085
 <211> 472
 <212> PRT
 <213> Homo sapiens

<400> 1085

Met	Lys	Gly	Asn	Tyr	Glu	Ser	Leu	Ile	Ser	Met	Asp	Tyr	Ala	Ile	Asn
1				5					10					15	
Gln	Pro	Asp	Val	Leu	Ser	Gln	Ile	Gln	Pro	Glu	Gly	Glu	His	Asn	Thr
			20					25					30		
Glu	Asp	Gln	Ala	Gly	Pro	Glu	Glu	Ser	Glu	Ile	Pro	Thr	Asp	Pro	Ser
		35					40					45			
Glu	Glu	Pro	Gly	Ile	Ser	Thr	Ser	Asp	Ile	Leu	Ser	Trp	Ile	Lys	Gln
	50					55					60				
Glu	Glu	Glu	Pro	Gln	Val	Gly	Ala	Pro	Pro	Glu	Ser	Lys	Glu	Ser	Asp
	65				70					75					80
Val	Tyr	Lys	Ser	Thr	Tyr	Ala	Asp	Glu	Glu	Leu	Val	Ile	Lys	Ala	Glu
			85						90						95
Gly	Leu	Ala	Arg	Ser	Ser	Leu	Cys	Pro	Glu	Val	Pro	Val	Pro	Phe	Ser
			100					105					110		
Ser	Pro	Pro	Ala	Ala	Ala	Lys	Asp	Ala	Phe	Ser	Asp	Val	Ala	Phe	Lys
		115					120					125			
Ser	Gln	Gln	Ser	Thr	Ser	Met	Thr	Pro	Phe	Gly	Arg	Pro	Ala	Thr	Asp
	130					135					140				
Leu	Pro	Glu	Ala	Ser	Glu	Gly	Gln	Val	Thr	Phe	Thr	Gln	Leu	Gly	Ser
	145				150					155					160
Tyr	Pro	Leu	Pro	Pro	Pro	Val	Gly	Glu	Gln	Val	Phe	Ser	Cys	His	His
			165					170						175	
Cys	Gly	Lys	Asn	Leu	Ser	Gln	Asp	Met	Leu	Leu	Thr	His	Gln	Cys	Ser
			180					185					190		
His	Ala	Thr	Glu	His	Pro	Leu	Pro	Cys	Ala	Gln	Cys	Pro	Lys	His	Phe
		195					200					205			
Thr	Pro	Gln	Ala	Asp	Leu	Ser	Ser	Thr	Ser	Gln	Asp	His	Ala	Ser	Glu
	210					215					220				
Thr	Pro	Pro	Thr	Cys	Pro	His	Cys	Ala	Arg	Thr	Phe	Thr	His	Pro	Ser
	225				230					235					240
Arg	Leu	Thr	Tyr	His	Leu	Arg	Val	His	Asn	Ser	Thr	Glu	Arg	Pro	Phe
			245						250					255	
Pro	Cys	Pro	Asp	Cys	Pro	Lys	Arg	Phe	Ala	Asp	Gln	Ala	Arg	Leu	Thr
			260					265					270		
Ser	His	Arg	Arg	Ala	His	Ala	Ser	Glu	Arg	Pro	Phe	Arg	Cys	Ala	Gln
		275					280					285			
Cys	Gly	Arg	Ser	Phe	Ser	Leu	Lys	Ile	Ser	Leu	Leu	Leu	His	Gln	Arg
	290					295					300				
Gly	His	Ala	Gln	Glu	Arg	Pro	Phe	Ser	Cys	Pro	Gln	Cys	Gly	Ile	Asp
	305				310					315					320
Phe	Asn	Gly	His	Ser	Ala	Leu	Ile	Arg	His	Gln	Met	Ile	His	Thr	Gly
			325						330					335	
Glu	Arg	Pro	Tyr	Pro	Cys	Thr	Asp	Cys	Ser	Lys	Ser	Phe	Met	Arg	Lys
		340						345					350		
Glu	His	Leu	Leu	Asn	His	Arg	Arg	Leu	His	Thr	Gly	Glu	Arg	Pro	Phe
		355					360					365			
Ser	Cys	Pro	His	Cys	Gly	Lys	Ser	Phe	Ile	Arg	Lys	His	His	Leu	Met
	370					375					380				
Lys	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Arg	Pro	Tyr	Pro	Cys	Ser	Tyr
	385				390					395					400

Cys Gly Arg Ser Phe Arg Tyr Lys Gln Thr Leu Lys Asp His Leu Arg
 405 410 415
 Ser Gly His Asn Gly Gly Cys Gly Gly Asp Ser Asp Pro Ser Gly Gln
 420 425 430
 Pro Pro Asn Pro Pro Gly Pro Leu Ile Thr Gly Leu Glu Thr Ser Gly
 435 440 445
 Leu Gly Val Asn Thr Glu Gly Leu Glu Thr Asn Gln Trp Tyr Gly Glu
 450 455 460
 Gly Ser Gly Gly Gly Val Leu *
 465 470 471

<210> 1086
 <211> 736
 <212> PRT
 <213> Homo sapiens

<400> 1086
 Ser Cys Gly His Lys Ser Ala Tyr Gly Ser Tyr Thr Gly Leu Gln Leu
 1 5 10 15
 Phe Trp Glu Asp Gly Gln Glu Leu Leu Gln His Gln Gln Leu Gln Asp
 20 25 30
 Leu Arg Leu Cys Val His Leu Arg Pro Gln Ser Glu Lys Val Glu Leu
 35 40 45
 Ser Leu Trp Thr Leu Phe Val Val Gly Lys Gly Glu Pro Ser Ala Val
 50 55 60
 Arg Glu Lys Leu Gly Lys Ala Gly Phe Ala Ala Ser Gly Pro Gly
 65 70 75 80
 Gly Arg Pro Gly Ala Glu Arg Ala Ser Thr Val Leu Asn Ile Leu His
 85 90 95
 Leu Thr Ala Glu Ser Arg Trp Glu Pro Asn Ala Cys Asn Arg Val Ser
 100 105 110
 Ser Ser Pro Ala Gly Val Gly Pro Leu Asp Leu Pro Val Gly Pro Leu
 115 120 125
 Leu Tyr Phe Phe Ala Pro Trp Ala Arg Ala Ser Phe Leu Cys His Ala
 130 135 140
 Phe Gln Arg Pro Leu Thr Gly Ile Gly Leu Asn Thr Val Arg Phe Thr
 145 150 155 160
 Ser Glu Phe Pro Leu His Ser Lys Asp Pro Thr Ala His Lys Leu Leu
 165 170 175
 Phe Thr Gly Asn Tyr Leu Cys Lys Leu His Pro Arg Pro Arg His Ala
 180 185 190
 Pro Gln Gly Ser Leu Ser Asp Phe Cys His Gly Thr Glu Gly Lys Asp
 195 200 205
 Leu Pro Ser Glu His Asn Val Ser Val Glu Gly Val Ala Gln Asp Arg
 210 215 220
 Ser Pro Glu Ala Thr Leu Cys Pro Gln Lys Thr Cys Pro Cys Asp Ile
 225 230 235 240
 Cys Gly Leu Arg Leu Lys Asp Ile Leu His Leu Ala Glu His Gln Thr
 245 250 255
 Thr His Pro Arg Gln Lys Pro Phe Val Cys Glu Ala Tyr Val Lys Gly
 260 265 270
 Ser Glu Phe Ser Ala Asn Leu Pro Gln Lys Gln Val Gln Gln Asn Val
 275 280 285
 His Asn Pro Ile Arg Thr Glu Glu Gly Gln Ala Ser Pro Val Lys Thr
 290 295 300
 Cys Arg Asp His Thr Ser Asp Gln Leu Ser Thr Cys Arg Glu Gly Gly
 305 310 315 320
 Lys Asp Phe Val Ala Thr Ala Gly Phe Leu Gln Cys Glu Val Thr Pro
 325 330 335
 Ser Asp Gly Glu Pro His Glu Ala Thr Glu Gly Val Val Asp Phe His
 340 345 350

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Ile Ala Leu Arg His Asn Lys Cys Cys Glu Ser Gly Asp Ala Phe Asn
    355                      360                      365
Asn Lys Ser Thr Leu Val Gln His Gln Arg Ile His Ser Arg Glu Arg
    370                      375                      380
Pro Tyr Glu Cys Ser Lys Cys Gly Ile Phe Phe Thr Tyr Ala Ala Asp
385                      390                      395                      400
Leu Thr Gln His Gln Lys Val His Asn Arg Gly Lys Pro Tyr Glu Cys
    405                      410                      415
Cys Glu Cys Gly Lys Phe Phe Ser Gln His Ser Ser Leu Val Lys His
    420                      425                      430
Arg Arg Val His Thr Gly Glu Ser Pro His Val Cys Gly Asp Cys Gly
    435                      440                      445
Lys Phe Phe Ser Arg Ser Ser Asn Leu Ile Gln His Lys Arg Val His
    450                      455                      460
Thr Gly Glu Lys Pro Tyr Glu Cys Ser Asp Cys Gly Lys Phe Phe Ser
465                      470                      475                      480
Gln Arg Ser Asn Leu Ile His His Lys Arg Val His Thr Gly Arg Ser
    485                      490                      495
Ala His Glu Cys Ser Glu Cys Gly Lys Ser Phe Asn Cys Asn Ser Ser
    500                      505                      510
Leu Ile Lys His Trp Arg Val His Thr Gly Glu Arg Pro Tyr Lys Cys
    515                      520                      525
Asn Glu Cys Gly Lys Phe Phe Ser His Ile Ala Ser Leu Ile Gln His
    530                      535                      540
Gln Ile Val His Thr Gly Glu Arg Pro His Gly Cys Gly Glu Cys Gly
545                      550                      555                      560
Lys Ala Phe Ile Arg Ser Ser Asp Leu Met Lys His Gln Arg Val His
    565                      570                      575
Thr Gly Glu Arg Pro Tyr Glu Cys Asn Glu Cys Gly Lys Leu Phe Ser
    580                      585                      590
Gln Ser Ser Ser Leu Asn Ser His Arg Arg Leu His Thr Gly Glu Arg
    595                      600                      605
Pro Tyr Gln Cys Ser Glu Cys Gly Lys Phe Phe Asn Gln Ser Ser Ser
    610                      615                      620
Leu Asn Asn His Arg Arg Leu His Thr Gly Glu Arg Pro Tyr Glu Cys
625                      630                      635                      640
Ser Glu Cys Gly Lys Thr Phe Arg Gln Arg Ser Asn Leu Arg Gln His
    645                      650                      655
Leu Lys Val His Lys Pro Asp Arg Pro Tyr Glu Cys Ser Glu Cys Gly
    660                      665                      670
Lys Ala Phe Asn Gln Arg Pro Thr Leu Ile Arg His Gln Lys Ile His
    675                      680                      685
Ile Arg Glu Arg Ser Met Glu Asn Val Leu Leu Pro Cys Ser Gln His
    690                      695                      700
Thr Pro Glu Ile Ser Ser Glu Asn Arg Pro Tyr Gln Gly Ala Val Asn
705                      710                      715                      720
Tyr Lys Leu Lys Leu Val His Pro Ser Thr His Pro Gly Glu Val Pro
    725                      730                      735 736

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<210> 1087

<211> 863

<212> PRT

<213> Homo sapiens

<400> 1087

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Met Gly Asn Arg Glu Met Glu Glu Leu Ile Pro Leu Val Asn Arg Leu
  1                      5                      10                      15
Gln Asp Ala Phe Ser Ala Leu Gly Gln Ser Cys Leu Leu Glu Leu Pro
    20                      25                      30

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Gln	Ile	Ala	Val	Val	Gly	Gly	Gln	Ser	Ala	Gly	Lys	Ser	Ser	Val	Leu
		35					40					45			
Glu	Asn	Phe	Val	Gly	Arg	Asp	Phe	Leu	Pro	Arg	Gly	Ser	Gly	Ile	Val
	50					55					60				
Thr	Arg	Arg	Pro	Leu	Val	Leu	Gln	Leu	Val	Thr	Ser	Lys	Ala	Glu	Tyr
	65				70					75					80
Ala	Glu	Phe	Leu	His	Cys	Lys	Gly	Lys	Lys	Phe	Thr	Asp	Phe	Asp	Glu
				85					90					95	
Val	Arg	Leu	Glu	Ile	Glu	Ala	Glu	Thr	Asp	Arg	Val	Thr	Gly	Met	Asn
			100					105					110		
Lys	Gly	Ile	Ser	Ser	Ile	Pro	Ile	Asn	Leu	Arg	Val	Tyr	Ser	Pro	His
	115						120					125			
Val	Leu	Asn	Leu	Thr	Leu	Ile	Asp	Leu	Pro	Gly	Ile	Thr	Lys	Val	Pro
	130					135						140			
Val	Gly	Asp	Gln	Pro	Pro	Asp	Ile	Glu	Tyr	Gln	Ile	Arg	Met	Ile	Met
	145				150					155					160
Gln	Phe	Ile	Thr	Arg	Glu	Asn	Cys	Leu	Ile	Leu	Ala	Val	Thr	Pro	Ala
				165					170					175	
Asn	Thr	Asp	Leu	Ala	Asn	Ser	Asp	Ala	Leu	Lys	Leu	Ala	Lys	Glu	Val
			180					185					190		
Asp	Pro	Gln	Gly	Leu	Arg	Thr	Ile	Gly	Val	Ile	Thr	Lys	Leu	Asp	Leu
	195						200					205			
Met	Asp	Glu	Gly	Thr	Asp	Ala	Arg	Asp	Val	Leu	Glu	Asn	Lys	Leu	Leu
	210					215					220				
Pro	Leu	Arg	Arg	Gly	Tyr	Val	Gly	Val	Val	Asn	Arg	Ser	Gln	Lys	Asp
	225				230					235					240
Ile	Asp	Gly	Lys	Lys	Asp	Ile	Lys	Ala	Ala	Met	Leu	Ala	Glu	Arg	Lys
				245					250					255	
Phe	Phe	Leu	Ser	His	Pro	Ala	Tyr	Arg	His	Ile	Ala	Asp	Arg	Met	Gly
			260					265					270		
Thr	Pro	His	Leu	Gln	Lys	Val	Leu	Asn	Gln	Gln	Leu	Thr	Asn	His	Ile
		275					280					285			
Arg	Asp	Thr	Leu	Pro	Asn	Phe	Arg	Asn	Lys	Leu	Gln	Gly	Gln	Leu	Leu
	290					295					300				
Ser	Ile	Glu	His	Glu	Val	Glu	Ala	Tyr	Lys	Asn	Phe	Lys	Pro	Glu	Asp
	305				310					315					320
Pro	Thr	Arg	Lys	Thr	Lys	Ala	Leu	Leu	Gln	Met	Val	Gln	Gln	Phe	Ala
				325					330					335	
Val	Asp	Phe	Glu	Lys	Arg	Ile	Glu	Gly	Ser	Gly	Asp	Gln	Val	Asp	Thr
			340					345					350		
Leu	Glu	Leu	Ser	Gly	Gly	Ala	Lys	Ile	Asn	Arg	Ile	Phe	His	Glu	Arg
		355					360					365			
Phe	Pro	Phe	Glu	Ile	Val	Lys	Met	Glu	Phe	Asn	Glu	Lys	Glu	Leu	Arg
	370					375					380				
Arg	Glu	Ile	Ser	Tyr	Ala	Ile	Lys	Asn	Ile	His	Gly	Ile	Arg	Thr	Gly
	385				390					395					400
Leu	Phe	Thr	Pro	Asp	Met	Ala	Phe	Glu	Ala	Ile	Val	Lys	Lys	Gln	Ile
				405					410					415	
Val	Lys	Leu	Lys	Gly	Pro	Ser	Leu	Lys	Ser	Val	Asp	Leu	Val	Ile	Gln
			420					425					430		
Glu	Leu	Ile	Asn	Thr	Val	Lys	Lys	Cys	Thr	Lys	Lys	Leu	Ala	Asn	Phe
		435					440					445			
Pro	Arg	Leu	Cys	Glu	Glu	Thr	Glu	Arg	Ile	Val	Ala	Asn	His	Ile	Arg
	450					455					460				
Glu	Arg	Glu	Gly	Lys	Thr	Lys	Asp	Gln	Val	Leu	Leu	Ile	Asp	Ile	
	465				470					475				480	
Gln	Val	Ser	Tyr	Ile	Asn	Thr	Asn	His	Glu	Asp	Phe	Ile	Gly	Phe	Ala
				485					490					495	
Asn	Ala	Gln	Gln	Arg	Ser	Ser	Gln	Val	His	Lys	Lys	Thr	Thr	Val	Gly
			500					505					510		
Asn	Gln	Val	Ile	Arg	Lys	Gly	Trp	Leu	Thr	Ile	Ser	Asn	Ile	Gly	Ile
		515					520					525			
Met	Lys	Gly	Gly	Ser	Lys	Gly	Tyr	Trp	Phe	Val	Leu	Thr	Ala	Glu	Ser
	530					535					540				

Leu Ser Trp Tyr Lys Asp Asp Glu Glu Lys Glu Lys Lys Tyr Met Leu
 545 550 555 560
 Pro Leu Asp Asn Leu Lys Val Arg Asp Val Glu Lys Ser Phe Met Ser
 565 570 575
 Ser Lys His Ile Phe Ala Leu Phe Asn Thr Glu Gln Arg Asn Val Tyr
 580 585 590
 Lys Asp Tyr Arg Phe Leu Glu Leu Ala Cys Asp Ser Gln Glu Asp Val
 595 600 605
 Asp Ser Trp Lys Ala Ser Leu Leu Arg Ala Gly Val Tyr Pro Asp Lys
 610 615 620
 Ser Val Gly Asn Asn Lys Ala Glu Asn Asp Glu Asn Gly Gln Ala Glu
 625 630 635 640
 Asn Phe Ser Met Asp Pro Gln Leu Glu Arg Gln Val Glu Thr Ile Arg
 645 650 655
 Asn Leu Val Asp Ser Tyr Met Ser Ile Ile Asn Lys Cys Ile Arg Asp
 660 665 670
 Leu Ile Pro Lys Thr Ile Met His Leu Met Ile Asn Asn Val Lys Asp
 675 680 685
 Phe Ile Asn Ser Glu Leu Leu Ala Gln Leu Tyr Ser Ser Glu Asp Gln
 690 695 700
 Asn Thr Leu Met Glu Glu Ser Ala Glu Gln Ala Gln Arg Arg Asp Glu
 705 710 715 720
 Met Leu Arg Met Tyr Gln Ala Leu Lys Glu Ala Leu Gly Ile Ile Gly
 725 730 735
 Asp Ile Ser Thr Ala Thr Val Ser Thr Pro Ala Pro Pro Pro Val Asp
 740 745 750
 Asp Ser Trp Ile Gln His Ser Arg Arg Ser Pro Pro Pro Ser Pro Thr
 755 760 765
 Thr Gln Arg Arg Pro Thr Leu Ser Ala Pro Leu Ala Arg Pro Thr Ser
 770 775 780
 Gly Arg Gly Pro Ala Pro Ala Ile Pro Ser Pro Gly Pro His Ser Gly
 785 790 795 800
 Ala Pro Pro Val Pro Phe Arg Pro Gly Pro Leu Pro Pro Phe Pro Ser
 805 810 815
 Ser Ser Asp Ser Phe Gly Ala Pro Pro Gln Val Pro Ser Arg Pro Thr
 820 825 830
 Arg Ala Pro Pro Ser Val Pro Ser Arg Arg Pro Pro Pro Ser Pro Thr
 835 840 845
 Arg Pro Thr Ile Ile Arg Pro Leu Glu Ser Ser Leu Leu Asp *
 850 855 860 862

<210> 1088

<211> 293

<212> PRT

<213> Homo sapiens

<400> 1088

Met Pro Arg Asn Arg His Glu Ala Thr Gly Arg Thr Pro Arg Ser Pro
 1 5 10 15
 Ser Ala Cys Ser Gly Val Gly Val Leu Pro Ala Leu Arg Met Arg Gly
 20 25 30
 Asn Leu Ala Leu Val Gly Val Leu Ile Ser Leu Ala Phe Leu Ser Leu
 35 40 45
 Leu Pro Ser Gly His Pro Gln Pro Ala Gly Asp Asp Ala Cys Ser Val
 50 55 60
 Gln Ile Leu Val Pro Gly Leu Lys Gly Asp Ala Gly Glu Lys Gly Asp
 65 70 75 80
 Lys Gly Ala Pro Gly Arg Pro Gly Arg Val Gly Pro Thr Gly Glu Lys
 85 90 95
 Gly Asp Met Gly Asp Lys Gly Gln Lys Gly Ser Val Gly Arg His Gly
 100 105 110

Lys	Ile	Gly	Pro	Ile	Gly	Ser	Lys	Gly	Glu	Lys	Gly	Asp	Ser	Gly	Asp
		115					120					125			
Ile	Gly	Pro	Pro	Gly	Pro	Asn	Gly	Glu	Pro	Gly	Leu	Pro	Cys	Glu	Cys
	130					135					140				
Ser	Gln	Leu	Arg	Lys	Ala	Ile	Gly	Glu	Met	Asp	Asn	Gln	Val	Ser	Gln
145				150						155					160
Leu	Thr	Ser	Glu	Leu	Lys	Phe	Ile	Lys	Asn	Ala	Val	Ala	Gly	Val	Arg
				165					170					175	
Glu	Thr	Glu	Ser	Lys	Ile	Tyr	Leu	Leu	Val	Lys	Glu	Glu	Lys	Arg	Tyr
			180					185					190		
Ala	Asp	Ala	Gln	Leu	Ser	Cys	Gln	Gly	Arg	Gly	Gly	Thr	Leu	Ser	Met
	195						200					205			
Pro	Lys	Asp	Glu	Ala	Ala	Asn	Gly	Leu	Met	Ala	Ala	Tyr	Leu	Ala	Gln
	210					215					220				
Ala	Gly	Leu	Ala	Arg	Val	Phe	Ile	Gly	Ile	Asn	Asp	Leu	Glu	Lys	Glu
225				230						235					240
Gly	Ala	Phe	Val	Tyr	Ser	Asp	His	Ser	Pro	Met	Arg	Thr	Phe	Asn	Lys
				245					250					255	
Trp	Arg	Ser	Gly	Glu	Pro	Asn	Asn	Ala	Tyr	Asp	Glu	Glu	Asp	Cys	Val
			260					265					270		
Glu	Met	Val	Ala	Ser	Gly	Gly	Trp	Asn	Asp	Val	Ala	Cys	His	Thr	Thr
	275						280					285			
Met	Tyr	Phe	Met	*											
	290		292												

<210> 1089
 <211> 269
 <212> PRT
 <213> Homo sapiens

<400> 1089

Met	Pro	Arg	Asn	Arg	His	Glu	Ala	Thr	Gly	Arg	Thr	Pro	Arg	Ser	Pro
1				5					10					15	
Ser	Ala	Cys	Ser	Gly	Val	Gly	Val	Leu	Pro	Ala	Leu	Arg	Met	Arg	Gly
			20					25					30		
Asn	Leu	Ala	Leu	Val	Gly	Val	Leu	Ile	Ser	Leu	Ala	Phe	Leu	Ser	Leu
	35						40					45			
Leu	Pro	Ser	Gly	His	Pro	Gln	Pro	Ala	Gly	Asp	Asp	Ala	Cys	Ser	Val
	50					55					60				
Gln	Ile	Leu	Val	Pro	Gly	Leu	Lys	Gly	Asp	Ala	Gly	Glu	Lys	Gly	Asp
65					70				75						80
Lys	Gly	Ala	Pro	Gly	Arg	Pro	Gly	Arg	Val	Gly	Pro	Thr	Gly	Glu	Lys
				85					90					95	
Gly	Glu	Lys	Gly	Asp	Ser	Gly	Asp	Ile	Gly	Pro	Pro	Gly	Pro	Asn	Gly
			100					105					110		
Glu	Pro	Gly	Leu	Pro	Cys	Glu	Cys	Ser	Gln	Leu	Arg	Lys	Ala	Ile	Gly
	115						120					125			
Glu	Met	Asp	Asn	Gln	Val	Ser	Gln	Leu	Thr	Ser	Glu	Leu	Lys	Phe	Ile
	130					135					140				
Lys	Asn	Ala	Val	Ala	Gly	Val	Arg	Glu	Thr	Glu	Ser	Lys	Ile	Tyr	Leu
145					150					155					160
Leu	Val	Lys	Glu	Glu	Lys	Arg	Tyr	Ala	Asp	Ala	Gln	Leu	Ser	Cys	Gln
				165					170					175	
Gly	Arg	Gly	Gly	Thr	Leu	Ser	Met	Pro	Lys	Asp	Glu	Ala	Ala	Asn	Gly
			180					185					190		
Leu	Met	Ala	Ala	Tyr	Leu	Ala	Gln	Ala	Gly	Leu	Ala	Arg	Val	Phe	Ile
	195						200					205			
Gly	Ile	Asn	Asp	Leu	Glu	Lys	Glu	Gly	Ala	Phe	Val	Tyr	Ser	Asp	His
	210					215					220				
Ser	Pro	Met	Arg	Thr	Phe	Asn	Lys	Trp	Arg	Ser	Gly	Glu	Pro	Asn	Asn
225					230					235					240

Ala	Tyr	Asp	Glu	Glu	Asp	Cys	Val	Glu	Met	Val	Ala	Ser	Gly	Gly	Trp
			245						250					255	
Asn	Asp	Val	Ala	Cys	His	Thr	Thr	Met	Tyr	Phe	Met	*			
		260						265			268				

<210> 1090
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 1090

Met	Lys	Val	Leu	Gln	Asn	Ala	Pro	Asp	Glu	Ile	Leu	Val	Val	Ala	Ser
1			5					10						15	
Ser	Met	Leu	Cys	Asn	Leu	Leu	Leu	Glu	Phe	Ser	Pro	Ser	Lys	Glu	Pro
		20						25					30		
Ile	Leu	Glu	Ser	Gly	Ala	Val	Glu	Leu	Leu	Cys	Gly	Leu	Thr	Gln	Ser
	35						40					45			
Glu	Asn	Pro	Ala	Leu	Arg	Val	Asn	Gly	Ile	Trp	Ala	Leu	Met	Asn	Met
	50				55						60				
Ala	Phe	Gln	Ala	Glu	Gln	Lys	Ile	Lys	Ala	Asp	Ile	Leu	Arg	Ser	Leu
65					70				75					80	
Ser	Thr	Glu	Gln	Leu	Phe	Arg	Leu	Leu	Ser	Asp	Ser	Asp	Leu	Asn	Val
			85					90						95	
Leu	Met	Lys	Thr	Leu	Gly	Leu	Leu	Arg	Asn	Leu	Leu	Ser	Thr	Arg	Pro
			100					105					110		
His	Ile	Asp	Lys	Ile	Met	Ser	Thr	His	Gly	Lys	Gln	Ile	Met	Gln	Ala
	115						120				125				
Val	Thr	Leu	Ile	Leu	Glu	Gly	Glu	His	Asn	Ile	Glu	Val	Lys	Glu	Gln
	130					135					140				
Thr	Leu	Cys	Ile	Leu	Ala	Asn	Ile	Ala	Asp	Gly	Thr	Thr	Ala	Lys	Asp
145					150					155				160	
Leu	Ile	Met	Thr	Asn	Asp	Asp	Ile	Leu	Gln	Lys	Ile	Lys	Tyr	Tyr	Met
			165					170						175	
Gly	His	Ser	His	Val	Lys	Leu	Gln	Leu	Ala	Ala	Met	Phe	Cys	Ile	Ser
			180					185					190		
Asn	Leu	Ile	Trp	Asn	Glu	Glu	Glu	Gly	Ser	Gln	Glu	Arg	Gln	Asp	Lys
	195					200					205				
Leu	Arg	Asp	Met	Gly	Ile	Val	Asp	Ile	Leu	His	Lys	Leu	Ser	Gln	Ser
	210					215					220				
Pro	Asp	Ser	Asn	Leu	Cys	Asp	Lys	Ala	Lys	Met	Ala	Leu	Gln	Gln	Tyr
225					230					235					240
Leu	Ala	*													
	242														

<210> 1091
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 1091

Ser	Cys	Val	Lys	Ile	Leu	Leu	Glu	His	Asn	Ala
1				5					10	11

<210> 1092
 <211> 62
 <212> PRT

<213> Homo sapiens

<400> 1092

Met	Asp	Pro	Asn	Cys	Ser	Cys	Ala	Ala	Gly	Asp	Ser	Cys	Thr	Cys	Ala
1				5					10					15	
Gly	Ser	Cys	Lys	Cys	Lys	Glu	Cys	Lys	Cys	Thr	Ser	Cys	Lys	Lys	Ser
			20					25					30		
Cys	Cys	Ser	Cys	Cys	Pro	Val	Gly	Cys	Ala	Lys	Cys	Ala	Gln	Gly	Cys
			35				40					45			
Ile	Cys	Lys	Gly	Ala	Ser	Asp	Lys	Cys	Ser	Cys	Cys	Ala	*		
			50			55					60	61			

<210> 1093

<211> 86

<212> PRT

<213> Homo sapiens

<400> 1093

Met	Ala	Ser	Asp	Leu	Asp	Phe	Ser	Pro	Pro	Glu	Val	Pro	Glu	Pro	Thr
1				5					10					15	
Phe	Leu	Glu	Asn	Leu	Leu	Arg	Tyr	Gly	Leu	Phe	Leu	Gly	Ala	Ile	Phe
			20					25					30		
Gln	Leu	Ile	Cys	Val	Leu	Ala	Ile	Ile	Val	Pro	Ile	Pro	Lys	Ser	His
			35				40					45			
Glu	Ala	Glu	Ala	Glu	Pro	Ser	Glu	Pro	Arg	Ser	Ala	Glu	Val	Thr	Arg
			50			55					60				
Lys	Pro	Lys	Ala	Ala	Val	Pro	Ser	Val	Asn	Lys	Arg	Pro	Lys	Lys	Glu
			65		70				75						80
Thr	Lys	Lys	Lys	Arg	*										
				85											

<210> 1094

<211> 132

<212> PRT

<213> Homo sapiens

<400> 1094

Met	Cys	Ile	Leu	Arg	Arg	His	Thr	Asp	Ile	Ser	Gln	Ser	Val	Ser	Asn
1				5					10					15	
Gly	Leu	Ile	Ala	Ile	Lys	Phe	Gly	Ser	Phe	Thr	Tyr	Ala	Thr	Thr	Glu
			20					25					30		
Lys	Val	Arg	Arg	Ser	Ile	Tyr	Ser	Cys	Leu	Asp	Ala	Gln	Phe	Tyr	Asp
			35				40					45			
Asp	Glu	Thr	Val	Thr	Val	Val	Leu	Lys	Asp	Thr	Val	Gly	Arg	Glu	Gly
			50			55					60				
Arg	Asp	Arg	Leu	Leu	Val	Gln	Leu	Pro	Leu	Ser	Leu	Val	Tyr	Asn	Ser
			65		70				75					80	
Glu	Asp	Ser	Ala	Glu	Tyr	Gln	Phe	Thr	Gly	Thr	Tyr	Ser	Thr	Arg	Leu
			85					90					95		
Asp	Glu	Gln	Cys	Ser	Ala	Ile	Pro	Thr	Arg	Thr	Met	His	Phe	Glu	Lys
			100				105					110			
His	Trp	Arg	Leu	Leu	Glu	Ser	Met	Lys	Ala	Gln	Tyr	Val	Ala	Gly	Asn
			115				120					125			
Gly	Phe	Arg	Lys												
			130												

<210> 1095
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 1095
 Phe Ala Tyr Gln Ser Ser Glu Val Asp Trp Cys Glu Ser Asn Phe Gln
 1 5 10 15
 Tyr Ser Glu Leu Val Ala Glu Phe Tyr Asn Thr Phe Ser Asn Ile Pro
 20 25 30
 Phe Phe Ile Phe Gly Pro Leu Met Met Leu Leu Met His Pro Tyr Ala
 35 40 45
 Gln Lys Arg Ser Arg Tyr Ile Tyr Val Val Trp Val Leu Phe Met Ile
 50 55 60
 Ile Gly Leu Phe Ser Met Tyr Phe His Met Thr Leu Ser Phe Leu Gly
 65 70 75 80
 Gln Leu Leu Asp Glu Ile Ala Ile Leu Trp Leu Leu Gly Ser Gly Tyr
 85 90 95
 Ser Ile Trp Met Pro Arg Cys Tyr Phe Pro Ser Phe Leu Gly Gly Asn
 100 105 110
 Arg Ser Gln Phe Ile Arg Leu Val Phe Ile Thr Thr Val Val Ser Thr
 115 120 125
 Leu Leu Ser Phe Leu Arg Pro Thr Val Asn Ala Tyr Ala Leu Asn Ser
 130 135 140
 Ile Ala Leu His Ile Leu Tyr Ile Val Cys Gln Glu Tyr Arg Lys Thr
 145 150 155 160
 Ser Asn Lys Glu Leu Arg His Leu Ile Glu Val Ser Val Val Leu Trp
 165 170 175
 Ala Val Ala Leu Thr Ser Trp Ile Ser Asp Arg Leu Leu Cys Ser Phe
 180 185 190
 Trp Gln Arg Ile His Phe Phe Tyr Leu His Ser Ile Trp His Val Leu
 195 200 205
 Ile Ser Ile Thr Phe Pro Tyr Gly Met Val Thr Met Ala Leu Val Asp
 210 215 220
 Ala Asn Tyr Glu Met Pro Gly Glu Thr Leu Lys Val Arg Tyr Trp Pro
 225 230 235 240
 Arg Asp Ser Trp Pro Val Gly Leu Pro Tyr Val Glu Ile Arg Gly Asp
 245 250 255
 Asp Lys Asp Cys
 260

<210> 1096
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 1096
 Met Ala Asp Gly Gln Met Pro Phe Ser Cys His Tyr Pro Ser Arg Leu
 1 5 10 15
 Arg Arg Asp Pro Phe Arg Asp Ser Pro Leu Ser Ser Arg Leu Asp
 20 25 30
 Asp Gly Phe Gly Met Asp Pro Phe Pro Asp Asp Leu Thr Ala Ser Trp
 35 40 45
 Pro Asp Trp Ala Leu Pro Arg Leu Ser Ser Ala Trp Pro Gly Thr Leu
 50 55 60
 Arg Ser Gly Met Val Pro Arg Gly Pro Thr Ala Thr Ala Arg Phe Gly
 65 70 75 80
 Val Pro Ala Glu Gly Arg Thr Pro Pro Pro Phe Pro Gly Glu Pro Trp
 85 90 95

Lys	Val	Cys	Val	Asn	Val	His	Ser	Phe	Lys	Pro	Glu	Glu	Leu	Met	Val
			100					105					110		
Lys	Thr	Lys	Asp	Gly	Tyr	Val	Glu	Val	Ser	Gly	Lys	His	Glu	Glu	Lys
		115					120					125			
Gln	Gln	Glu	Gly	Gly	Ile	Val	Ser	Lys	Asn	Phe	Thr	Lys	Lys	Ile	Gln
		130					135				140				
Leu	Pro	Ala	Glu	Val	Asp	Pro	Val	Thr	Val	Phe	Ala	Ser	Leu	Ser	Pro
145					150					155					160
Glu	Gly	Leu	Leu	Ile	Ile	Glu	Ala	Pro	Gln	Val	Pro	Pro	Tyr	Ser	Thr
				165					170					175	
Phe	Gly	Glu	Ser	Ser	Phe	Asn	Asn	Glu	Leu	Pro	Gln	Asp	Ser	Gln	Glu
			180					185					190		
Val	Thr	Cys	Thr	*											
		195	196												

<210> 1097
 <211> 961
 <212> PRT
 <213> Homo sapiens

<400> 1097

Met	Asp	Pro	Met	Ser	Leu	Glu	Ser	Leu	Leu	Ser	Asp	Asp	Leu	Val	Ala
1				5					10					15	
Phe	Glu	His	Gln	Trp	Thr	Ser	Phe	Phe	Ala	Asn	Phe	Asp	Thr	Glu	Ile
			20					25					30		
Pro	Phe	Leu	Leu	Glu	Leu	Ser	Glu	Ser	Gln	Ala	Gly	Glu	Cys	Gly	Gly
		35					40					45			
Ala	Arg	Asn	Ser	Thr	Gly	His	Gln	Leu	Ile	Asp	Val	Gly	Ile	Ile	Ile
	50					55				60					
His	Ile	Pro	Asn	Arg	Gln	Pro	Phe	Val	Leu	Phe	Gly	Asn	His	Ser	Thr
65					70					75					80
Arg	Glu	Asn	Leu	Asn	Ala	Gly	Asn	Phe	Asn	Phe	Pro	Ser	Glu	Gly	His
			85					90						95	
Leu	Val	Arg	Ser	Thr	Gly	Pro	Gly	Gly	Ser	Phe	Ala	Lys	His	Met	Val
			100					105					110		
Ala	Gln	Cys	Val	Ser	Pro	Lys	Gly	Pro	Leu	Ala	Cys	Ser	Arg	Thr	Tyr
		115					120					125			
Phe	Phe	Gly	Ala	Thr	His	Val	Pro	Tyr	Leu	Gly	Gly	Asp	Ser	Lys	Leu
	130					135					140				
Pro	Lys	Lys	Thr	Glu	Gln	Ile	Arg	Leu	Leu	Ser	Gln	Ile	Tyr	Ala	Ala
145					150					155					160
Val	Ile	Glu	Ala	Val	Leu	Ala	Gly	Ile	Ala	Cys	Tyr	Ala	Lys	Thr	Ser
				165				170						175	
Ser	Leu	Thr	Lys	Ala	Lys	Glu	Val	Ala	Glu	Gln	Thr	Leu	Gly	Ser	Gly
			180					185					190		
Leu	Asp	Ser	Phe	Glu	Leu	Ile	Pro	Phe	Lys	Ala	Ala	Leu	Arg	Ser	Lys
		195					200					205			
Met	Thr	Phe	His	Ile	His	Ala	Val	Asn	Asn	Gln	Gly	Arg	Ile	Val	Pro
	210					215					220				
Leu	Asp	Ser	Glu	Asp	Ser	Leu	Ser	Phe	Val	Lys	Thr	Ala	Cys	Met	Ala
225					230					235					240
Val	Tyr	Asp	Ile	Pro	Asp	Leu	Leu	Gly	Gly	Asn	Gly	Cys	Leu	Gly	Ser
			245					250						255	
Val	Val	Phe	Ser	Glu	Ser	Phe	Leu	Thr	Ser	Gln	Ile	Leu	Val	Lys	Glu
			260					265					270		
Lys	Asp	Gly	Thr	Val	Thr	Thr	Glu	Thr	Ser	Ser	Val	Val	Leu	Thr	Ala
		275					280					285			
Ala	Val	Pro	Arg	Phe	Cys	Ser	Trp	Leu	Val	Glu	Asp	Asn	Glu	Val	Lys
	290					295					300				
Leu	Ser	Glu	Lys	Thr	Gln	Gln	Ala	Val	Arg	Gly	Asp	Glu	Ser	Phe	Leu
305					310					315					320

Gly	Thr	Tyr	Leu	Thr	Gly	Gly	Glu	Gly	Ala	Tyr	Leu	Tyr	Ser	Ser	Asn
				325					330					335	
Leu	Gln	Ser	Trp	Pro	Glu	Glu	Gly	Asn	Val	His	Phe	Phe	Ser	Ser	Gly
			340					345					350		
Leu	Leu	Phe	Ser	His	Cys	Arg	His	Gly	Ser	Ile	Ile	Ile	Ser	Lys	Asp
		355					360					365			
His	Met	Asn	Ser	Ile	Ser	Phe	Tyr	Asp	Gly	Asp	Ser	Thr	Ser	Thr	Val
	370					375					380				
Ala	Ala	Leu	Leu	Ile	Asp	Phe	Lys	Ser	Ser	Leu	Leu	Pro	His	Leu	Pro
385					390					395					400
Val	His	Phe	His	Gly	Ser	Ser	Asn	Phe	Leu	Met	Ile	Ala	Leu	Phe	Pro
				405					410					415	
Lys	Ser	Lys	Ile	Tyr	Gln	Ala	Phe	Tyr	Ser	Glu	Val	Phe	Ser	Leu	Trp
			420					425					430		
Lys	Gln	Gln	Asp	Asn	Ser	Gly	Ile	Ser	Leu	Lys	Val	Ile	Gln	Glu	Asp
		435					440					445			
Gly	Leu	Ser	Val	Glu	Gln	Lys	Arg	Leu	His	Ser	Ser	Ala	Gln	Lys	Leu
	450					455					460				
Phe	Ser	Ala	Leu	Ser	Gln	Pro	Ala	Gly	Glu	Lys	Arg	Ser	Ser	Leu	Lys
465					470					475					480
Leu	Leu	Ser	Ala	Lys	Leu	Pro	Glu	Leu	Asp	Trp	Phe	Leu	Gln	His	Phe
				485					490					495	
Ala	Ile	Ser	Ser	Ile	Ser	Gln	Glu	Pro	Val	Met	Arg	Thr	His	Leu	Pro
			500					505					510		
Val	Leu	Leu	Gln	Gln	Ala	Glu	Ile	Asn	Thr	Thr	His	Arg	Ile	Glu	Ser
		515					520					525			
Asp	Lys	Val	Ile	Ile	Ser	Ile	Val	Thr	Gly	Leu	Pro	Gly	Cys	His	Ala
	530					535					540				
Ser	Glu	Leu	Cys	Ala	Phe	Leu	Val	Thr	Leu	His	Lys	Glu	Cys	Gly	Arg
545				550					555						560
Trp	Met	Val	Tyr	Arg	Gln	Ile	Met	Asp	Ser	Ser	Glu	Cys	Phe	His	Ala
				565				570						575	
Ala	His	Phe	Gln	Arg	Tyr	Leu	Ser	Ser	Ala	Leu	Glu	Ala	Gln	Gln	Asn
			580					585					590		
Arg	Ser	Ala	Arg	Gln	Ser	Ala	Tyr	Ile	Arg	Lys	Lys	Thr	Arg	Leu	Leu
		595				600						605			
Val	Val	Leu	Gln	Gly	Tyr	Thr	Asp	Val	Ile	Asp	Val	Val	Gln	Ala	Leu
	610					615					620				
Gln	Thr	His	Pro	Asp	Ser	Asn	Val	Lys	Ala	Ser	Phe	Thr	Ile	Gly	Ala
625				630						635					640
Ile	Thr	Ala	Cys	Val	Glu	Pro	Met	Ser	Cys	Tyr	Met	Glu	His	Arg	Phe
				645					650					655	
Leu	Phe	Pro	Lys	Cys	Leu	Asp	Gln	Cys	Ser	Gln	Gly	Leu	Val	Ser	Asn
			660					665					670		
Val	Val	Phe	Thr	Ser	His	Thr	Thr	Glu	Gln	Arg	His	Pro	Leu	Leu	Val
		675					680					685			
Gln	Leu	Gln	Ser	Leu	Ile	Arg	Ala	Ala	Asn	Pro	Ala	Ala	Ala	Phe	Ile
	690					695					700				
Leu	Ala	Glu	Asn	Gly	Ile	Val	Thr	Arg	Asn	Glu	Asp	Ile	Glu	Leu	Ile
705				710					715						720
Leu	Ser	Glu	Asn	Ser	Phe	Ser	Ser	Pro	Glu	Met	Leu	Arg	Ser	Arg	Tyr
			725					730					735		
Leu	Met	Tyr	Pro	Gly	Trp	Tyr	Glu	Gly	Lys	Leu	Asn	Ala	Gly	Ser	Val
			740					745					750		
Tyr	Pro	Leu	Met	Val	Gln	Ile	Cys	Val	Trp	Phe	Gly	Arg	Pro	Leu	Glu
		755				760						765			
Lys	Thr	Arg	Phe	Val	Ala	Lys	Cys	Lys	Ala	Ile	Gln	Ser	Ser	Ile	Lys
	770					775					780				
Pro	Ser	Pro	Phe	Ser	Gly	Asn	Ile	Tyr	His	Ile	Leu	Gly	Lys	Val	Lys
785					790					795					800
Phe	Ser	Asp	Ser	Glu	Arg	Thr	Met	Glu	Val	Cys	Tyr	Asn	Thr	Leu	Ala
				805					810					815	
Asn	Ser	Leu	Ser	Ile	Met	Pro	Val	Leu	Glu	Gly	Pro	Thr	Pro	Pro	Pro
			820					825					830		

Asp Ser Lys Ser Val Ser Gln Asp Ser Ser Gly Gln Gln Glu Cys Tyr
 835 840 845
 Leu Val Phe Ile Gly Cys Ser Leu Lys Glu Asp Ser Ile Lys Asp Trp
 850 855 860
 Leu Arg Gln Ser Ala Lys Gln Lys Pro Gln Arg Lys Ala Leu Lys Thr
 865 870 875 880
 Arg Gly Met Leu Thr Gln Gln Glu Ile Arg Ser Ile His Val Lys Arg
 885 890 895
 His Leu Glu Pro Leu Pro Ala Gly Tyr Phe Tyr Asn Gly Thr Gln Phe
 900 905 910
 Val Asn Phe Phe Gly Asp Lys Thr Asp Phe His Pro Leu Met Asp Gln
 915 920 925
 Phe Met Asn Asp Tyr Val Glu Glu Ala Asn Arg Glu Ile Glu Lys Tyr
 930 935 940
 Asn Gln Glu Leu Glu Gln Gln Glu Tyr His Asp Leu Phe Glu Leu Lys
 945 950 955 960
 Pro
 961

<210> 1098
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 1098
 Met Ser Ala Ala Gly Ala Arg Gly Leu Arg Ala Thr Tyr His Arg Leu
 1 5 10 15
 Leu Asp Lys Val Glu Leu Met Leu Pro Glu Lys Leu Arg Pro Leu Tyr
 20 25 30
 Asn His Pro Ala Gly Pro Arg Thr Val Phe Phe Trp Ala Pro Ile Met
 35 40 45
 Lys Trp Gly Leu Val Cys Ala Gly Leu Ala Asp Met Ala Arg Pro Ala
 50 55 60
 Glu Lys Leu Ser Thr Ala Gln Ser Ala Val Leu Met Ala Thr Gly Phe
 65 70 75 80
 Ile Trp Ser Arg Tyr Ser Leu Val Ile Ile Pro Lys Asn Trp Ser Leu
 85 90 95
 Phe Ala Val Asn Phe Phe Val Gly Ala Ala Gly Ala Ser Gln Leu Phe
 100 105 110
 Arg Ile Trp Arg Tyr Asn Gln Glu Leu Lys Ala Lys Ala His Lys
 115 120 125 127

<210> 1099
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 1099
 Met Ser Leu Leu Arg Ser Leu Arg Val Phe Leu Val Ala Arg Thr Gly
 1 5 10 15
 Ser Tyr Pro Ala Gly Ser Leu Leu Arg Gln Ser Pro Gln Pro Arg His
 20 25 30
 Thr Phe Tyr Ala Gly Pro Arg Leu Ser Ala Ser Ala Ser Ser Lys Glu
 35 40 45
 Leu Leu Met Lys Leu Arg Arg Lys Thr Gly Tyr Ser Phe Val Asn Cys
 50 55 60
 Lys Lys Ala Leu Glu Thr Cys Gly Gly Asp Leu Lys Gln Ala Glu Ile
 65 70 75 80

Trp	Leu	His	Lys	Glu	Ala	Gln	Lys	Glu	Gly	Trp	Ser	Lys	Ala	Ala	Lys
				85					90					95	
Leu	Gln	Gly	Arg	Lys	Thr	Lys	Glu	Gly	Leu	Ile	Gly	Leu	Leu	Gln	Glu
			100					105					110		
Gly	Asn	Thr	Thr	Val	Leu	Val	Glu	Val	Asn	Cys	Glu	Thr	Asp	Phe	Val
		115					120					125			
Ser	Arg	Asn	Leu	Lys	Phe	Gln	Leu	Leu	Val	Gln	Gln	Val	Ala	Leu	Gly
	130					135					140				
Thr	Met	Met	His	Cys	Gln	Thr	Leu	Lys	Asp	Gln	Pro	Ser	Ala	Tyr	Ser
145					150					155					160
Lys	Gly	Phe	Leu	Asn	Ser	Ser	Glu	Leu	Ser	Gly	Leu	Pro	Ala	Gly	Pro
				165					170					175	
Asp	Arg	Glu	Gly	Ser	Leu	Lys	Asp	Gln	Leu	Ala	Leu	Ala	Ile	Gly	Lys
			180					185					190		
Leu	Gly	Glu	Asn	Met	Ile	Leu	Lys	Arg	Ala	Ala	Trp	Val	Lys	Val	Pro
	195						200					205			
Ser	Gly	Phe	Tyr	Val	Gly	Ser	Tyr	Val	His	Gly	Ala	Met	Gln	Ser	Pro
	210					215					220				
Ser	Leu	His	Lys	Leu	Val	Leu	Gly	Lys	Tyr	Gly	Ala	Leu	Val	Ile	Cys
225					230					235					240
Glu	Thr	Ser	Glu	Gln	Lys	Thr	Asn	Leu	Glu	Asp	Val	Gly	Arg	Arg	Leu
				245					250				255		
Gly	Gln	His	Val	Val	Gly	Met	Ala	Pro	Leu	Ser	Val	Gly	Ser	Leu	Asp
			260					265					270		
Asp	Glu	Pro	Gly	Gly	Glu	Ala	Glu	Thr	Lys	Met	Leu	Ser	Gln	Pro	Tyr
	275						280					285			
Leu	Leu	Asp	Pro	Ser	Ile	Thr	Leu	Gly	Gln	Tyr	Val	Gln	Pro	Gln	Gly
	290					295					300				
Val	Ser	Val	Val	Asp	Phe	Val	Arg	Phe	Glu	Cys	Gly	Glu	Gly	Glu	Glu
305					310					315					320
Ala	Ala	Glu	Thr	Glu											
				325											

<210> 1100

<211> 409

<212> PRT

<213> Homo sapiens

<400> 1100

Met	Pro	Pro	Pro	Arg	Lys	His	Thr	Leu	Leu	Ala	Asn	Asn	Gly	Phe	Ala
1				5					10					15	
Ile	Ser	Ala	Ala	Leu	Leu	Met	Ala	Cys	Ser	Leu	Gln	Ala	Gly	Ala	Phe
			20					25					30		
Glu	Met	Leu	Ile	Val	Gly	Arg	Phe	Ile	Met	Gly	Ile	Asp	Gly	Gly	Val
		35				40						45			
Ala	Leu	Ser	Val	Leu	Pro	Met	Tyr	Leu	Ser	Glu	Ile	Ser	Pro	Lys	Glu
	50					55				60					
Ile	Arg	Gly	Ser	Leu	Gly	Gln	Val	Thr	Ala	Ile	Phe	Ile	Cys	Ile	Gly
65					70				75						80
Val	Phe	Thr	Gly	Gln	Leu	Leu	Gly	Leu	Pro	Glu	Leu	Leu	Gly	Lys	Glu
				85					90					95	
Ser	Thr	Trp	Pro	Tyr	Leu	Phe	Gly	Val	Ile	Val	Val	Pro	Ala	Val	Val
			100				105						110		
Gln	Leu	Leu	Ser	Leu	Pro	Phe	Leu	Pro	Asp	Ser	Pro	Arg	Tyr	Leu	Leu
	115					120						125			
Leu	Glu	Lys	His	Asn	Glu	Ala	Arg	Ala	Val	Lys	Ala	Phe	Gln	Thr	Phe
	130					135					140				
Leu	Gly	Lys	Ala	Asp	Ile	Ser	Gln	Glu	Val	Glu	Glu	Val	Leu	Ala	Glu
145					150					155					160
Ser	Arg	Val	Gln	Arg	Ser	Ile	Arg	Leu	Val	Ser	Val	Leu	Glu	Leu	Leu
				165					170					175	

Arg Ala Pro Tyr Val Arg Trp Gln Val Val Thr Val Ile Val Thr Met
 180 185 190
 Ala Cys Tyr Gln Leu Cys Gly Leu Asn Ala Ile Trp Phe Tyr Thr Asn
 195 200 205
 Ser Ile Phe Gly Lys Ala Gly Ile Pro Pro Ala Lys Ile Pro Tyr Val
 210 215 220
 Thr Leu Ser Thr Gly Gly Ile Glu Thr Leu Ala Ala Val Phe Ser Gly
 225 230 235 240
 Leu Val Ile Glu His Leu Gly Arg Arg Pro Leu Leu Ile Gly Gly Phe
 245 250 255
 Gly Leu Met Gly Leu Phe Phe Gly Thr Leu Thr Ile Thr Leu Thr Leu
 260 265 270
 Gln Asp His Ala Pro Trp Val Pro Tyr Leu Ser Ile Val Gly Ile Leu
 275 280 285
 Ala Ile Ile Ala Ser Phe Cys Ser Gly Pro Gly Gly Ile Pro Phe Ile
 290 295 300
 Leu Thr Gly Glu Phe Phe Gln Gln Ser Gln Arg Pro Ala Ala Phe Ile
 305 310 315 320
 Ile Ala Gly Thr Val Asn Trp Leu Ser Asn Phe Ala Val Gly Leu Leu
 325 330 335
 Phe Pro Phe Ile Gln Lys Ser Leu Asp Thr Tyr Cys Phe Leu Val Phe
 340 345 350
 Ala Thr Ile Cys Ile Thr Gly Ala Ile Tyr Leu Tyr Phe Val Leu Pro
 355 360 365
 Glu Thr Lys Asn Arg Thr Tyr Ala Glu Ile Ser Gln Ala Phe Ser Lys
 370 375 380
 Arg Asn Lys Ala Tyr Pro Pro Glu Glu Lys Ile Asp Ser Ala Val Thr
 385 390 395 400
 Asp Gly Lys Ile Asn Gly Arg Pro *
 405 408

<210> 1101
 <211> 178
 <212> PRT
 <213> Homo sapiens

<400> 1101
 Met Pro Lys Ala Lys Gly Lys Thr Arg Arg Gln Lys Phe Gly Tyr Ser
 1 5 10 15
 Val Asn Arg Lys Arg Leu Asn Arg Asn Ala Arg Arg Lys Ala Ala Pro
 20 25 30
 Arg Ile Glu Cys Ser His Ile Arg His Ala Trp Asp His Ala Lys Ser
 35 40 45
 Val Arg Gln Asn Leu Ala Glu Met Gly Leu Ala Val Asp Pro Asn Arg
 50 55 60
 Ala Val Pro Leu Arg Lys Arg Lys Val Lys Ala Met Glu Val Asp Ile
 65 70 75 80
 Glu Glu Arg Pro Lys Glu Leu Val Arg Lys Pro Tyr Val Leu Asn Asp
 85 90 95
 Leu Glu Ala Glu Ala Ser Leu Pro Glu Lys Lys Gly Asn Thr Leu Ser
 100 105 110
 Arg Asp Leu Ile Asp Tyr Val Arg Tyr Met Val Glu Asn His Gly Glu
 115 120 125
 Asp Tyr Lys Ala Met Ala Arg Asp Glu Lys Asn Tyr Tyr Gln Asp Thr
 130 135 140
 Pro Lys Gln Ile Arg Ser Lys Ile Asn Val Tyr Lys Arg Phe Tyr Pro
 145 150 155 160
 Ala Glu Trp Gln Asp Phe Leu Asp Ser Leu Gln Lys Arg Lys Met Glu
 165 170 175
 Val Glu
 178

<210> 1102
 <211> 527
 <212> PRT
 <213> Homo sapiens

<400> 1102
 Met Ala Asp Ser Arg Asp Pro Ala Ser Asp Gln Met Gln His Trp Lys
 1 5 10 15
 Glu Gln Arg Ala Ala Gln Lys Ala Asp Val Leu Thr Thr Gly Ala Gly
 20 25 30
 Asn Pro Val Gly Asp Lys Leu Asn Val Ile Thr Val Gly Pro Arg Gly
 35 40 45
 Pro Leu Leu Val Gln Asp Val Val Phe Thr Asp Glu Met Ala His Phe
 50 55 60
 Asp Arg Glu Arg Ile Pro Glu Arg Val Val His Ala Lys Gly Ala Gly
 65 70 75 80
 Ala Phe Gly Tyr Phe Glu Val Thr His Asp Ile Thr Lys Tyr Ser Lys
 85 90 95
 Ala Lys Val Phe Glu His Ile Gly Lys Lys Thr Pro Ile Ala Val Arg
 100 105 110
 Phe Ser Thr Val Ala Gly Glu Ser Gly Ser Ala Asp Thr Val Arg Asp
 115 120 125
 Pro Arg Gly Phe Ala Val Lys Phe Tyr Thr Glu Asp Gly Asn Trp Asp
 130 135 140
 Leu Val Gly Asn Asn Thr Pro Ile Phe Phe Ile Arg Asp Pro Ile Leu
 145 150 155 160
 Phe Pro Ser Phe Ile His Ser Gln Lys Arg Asn Pro Gln Thr His Leu
 165 170 175
 Lys Asp Pro Asp Met Val Trp Asp Phe Trp Ser Leu Arg Pro Glu Ser
 180 185 190
 Leu His Gln Val Ser Phe Leu Phe Ser Asp Arg Gly Ile Pro Asp Gly
 195 200 205
 His Arg His Met Asn Gly Tyr Gly Ser His Thr Phe Lys Leu Val Asn
 210 215 220
 Ala Asn Gly Glu Ala Val Tyr Cys Lys Phe His Tyr Lys Thr Asp Gln
 225 230 235 240
 Gly Ile Lys Asn Leu Ser Val Glu Asp Ala Ala Arg Leu Ser Gln Glu
 245 250 255
 Asp Pro Asp Tyr Gly Ile Arg Asp Leu Phe Asn Ala Ile Ala Thr Gly
 260 265 270
 Lys Tyr Pro Ser Trp Thr Phe Tyr Ile Gln Val Met Thr Phe Asn Gln
 275 280 285
 Ala Glu Thr Phe Pro Phe Asn Pro Phe Asp Leu Thr Lys Val Trp Pro
 290 295 300
 His Lys Asp Tyr Pro Leu Ile Pro Val Gly Lys Leu Val Leu Asn Arg
 305 310 315 320
 Asn Pro Val Asn Tyr Phe Ala Glu Val Glu Gln Ile Ala Phe Asp Pro
 325 330 335
 Ser Asn Met Pro Pro Gly Ile Glu Ala Ser Pro Asp Lys Met Leu Gln
 340 345 350
 Gly Arg Leu Phe Ala Tyr Pro Asp Thr His Arg His Arg Leu Gly Pro
 355 360 365
 Asn Tyr Leu His Ile Pro Val Asn Cys Pro Tyr Arg Ala Arg Val Ala
 370 375 380
 Asn Tyr Gln Arg Asp Gly Pro Met Cys Met Gln Asp Asn Gln Gly Gly
 385 390 395 400
 Ala Pro Asn Tyr Tyr Pro Asn Ser Phe Gly Ala Pro Glu Gln Gln Pro
 405 410 415
 Ser Ala Leu Glu His Ser Ile Gln Tyr Ser Gly Glu Val Arg Arg Phe
 420 425 430

Asn	Thr	Ala	Asn	Asp	Asp	Asn	Val	Thr	Gln	Val	Arg	Ala	Phe	Tyr	Val
	435						440					445			
Asn	Val	Leu	Asn	Glu	Glu	Gln	Arg	Lys	Arg	Leu	Cys	Glu	Asn	Ile	Ala
	450					455					460				
Gly	His	Leu	Lys	Asp	Ala	Gln	Ile	Phe	Ile	Gln	Lys	Lys	Ala	Val	Lys
465					470					475					480
Asn	Phe	Thr	Glu	Val	His	Pro	Asp	Tyr	Gly	Ser	His	Ile	Gln	Ala	Leu
			485						490						495
Leu	Asp	Lys	Tyr	Asn	Ala	Glu	Lys	Pro	Lys	Asn	Ala	Ile	His	Thr	Phe
		500						505				510			
Val	Gln	Ser	Gly	Ser	His	Leu	Ala	Ala	Arg	Glu	Lys	Ala	Asn	Leu	
		515					520					525		527	

<210> 1103

<211> 329

<212> PRT

<213> Homo sapiens

<400> 1103

Met	Thr	Gly	Asn	Ala	Gly	Glu	Trp	Cys	Leu	Met	Glu	Ser	Asp	Pro	Gly
1			5						10					15	
Val	Phe	Thr	Glu	Leu	Ile	Lys	Gly	Phe	Gly	Cys	Arg	Gly	Ala	Gln	Val
			20					25					30		
Glu	Glu	Ile	Trp	Ser	Leu	Glu	Pro	Glu	Asn	Phe	Glu	Lys	Leu	Lys	Pro
		35					40					45			
Val	His	Gly	Leu	Ile	Phe	Leu	Phe	Lys	Trp	Gln	Pro	Gly	Glu	Glu	Pro
	50					55				60					
Ala	Gly	Ser	Val	Val	Gln	Asp	Ser	Arg	Leu	Asp	Thr	Ile	Phe	Phe	Ala
65					70				75						80
Lys	Gln	Val	Ile	Asn	Asn	Ala	Cys	Ala	Thr	Gln	Ala	Ile	Val	Ser	Val
				85					90					95	
Leu	Leu	Asn	Cys	Thr	His	Gln	Asp	Val	His	Leu	Gly	Glu	Thr	Leu	Ser
		100						105					110		
Glu	Phe	Lys	Glu	Phe	Ser	Gln	Ser	Phe	Asp	Ala	Ala	Met	Lys	Gly	Leu
		115					120					125			
Ala	Leu	Ser	Asn	Ser	Asp	Val	Ile	Arg	Gln	Val	His	Asn	Ser	Phe	Ala
	130					135					140				
Arg	Gln	Gln	Met	Phe	Glu	Phe	Asp	Thr	Lys	Thr	Ser	Ala	Lys	Glu	Glu
145					150					155					160
Asp	Ala	Phe	His	Phe	Val	Ser	Tyr	Val	Pro	Val	Asn	Gly	Arg	Leu	Tyr
			165						170					175	
Glu	Leu	Asp	Gly	Leu	Arg	Glu	Gly	Pro	Ile	Asp	Leu	Gly	Ala	Cys	Asn
			180					185					190		
Gln	Asp	Asp	Trp	Ile	Ser	Ala	Val	Arg	Pro	Val	Ile	Glu	Lys	Arg	Ile
		195					200						205		
Gln	Lys	Tyr	Ser	Glu	Gly	Glu	Ile	Arg	Phe	Asn	Leu	Met	Ala	Ile	Val
	210					215					220				
Ser	Asp	Arg	Lys	Met	Ile	Tyr	Glu	Gln	Lys	Ile	Ala	Glu	Leu	Gln	Arg
225				230						235					240
Gln	Leu	Ala	Glu	Glu	Glu	Pro	Met	Asp	Thr	Asp	Gln	Gly	Asn	Ser	Met
			245						250					255	
Leu	Ser	Ala	Ile	Gln	Ser	Glu	Val	Ala	Lys	Asn	Gln	Met	Leu	Ile	Glu
		260						265					270		
Glu	Glu	Val	Gln	Lys	Leu	Lys	Arg	Tyr	Lys	Ile	Glu	Asn	Ile	Arg	Arg
		275					280					285			
Lys	His	Asn	Tyr	Leu	Pro	Phe	Ile	Met	Glu	Leu	Leu	Lys	Thr	Leu	Ala
	290					295					300				
Glu	His	Gln	Gln	Leu	Ile	Pro	Leu	Val	Glu	Lys	Ala	Lys	Glu	Lys	Gln
305				310						315					320
Asn	Ala	Lys	Lys	Ala	Gln	Glu	Thr	Lys							
			325					329							

<210> 1104
 <211> 749
 <212> PRT
 <213> Homo sapiens

<400> 1104
 Met Ala Glu Leu Gly Ala Gly Gly Asp Gly His Arg Gly Gly Asp Gly
 1 5 10 15
 Ala Val Arg Ser Glu Thr Ala Pro Asp Ser Tyr Lys Val Gln Asp Lys
 20 25 30
 Lys Asn Ala Ser Ser Arg Pro Ala Ser Ala Ile Ser Gly Gln Asn Asn
 35 40 45
 Asn His Ser Gly Asn Lys Pro Asp Pro Pro Pro Val Leu Arg Val Asp
 50 55 60
 Asp Arg Gln Arg Leu Ala Arg Glu Arg Arg Glu Glu Arg Glu Lys Gln
 65 70 75 80
 Leu Ala Ala Arg Glu Ile Val Trp Leu Glu Arg Glu Glu Arg Ala Arg
 85 90 95
 Gln His Tyr Glu Lys His Leu Glu Glu Arg Lys Lys Arg Leu Glu Glu
 100 105 110
 Gln Arg Gln Lys Glu Glu Arg Arg Arg Ala Ala Val Glu Glu Lys Arg
 115 120 125
 Arg Gln Arg Leu Glu Glu Asp Lys Glu Arg His Glu Ala Val Val Arg
 130 135 140
 Arg Thr Met Glu Arg Ser Gln Lys Pro Lys Gln Lys His Asn Arg Trp
 145 150 155 160
 Ser Trp Gly Gly Ser Leu His Gly Ser Pro Ser Ile His Ser Ala Asp
 165 170 175
 Pro Asp Arg Arg Ser Val Ser Thr Met Asn Leu Ser Lys Tyr Val Asp
 180 185 190
 Pro Val Ile Ser Lys Arg Leu Ser Ser Ser Ser Ala Thr Leu Leu Asn
 195 200 205
 Ser Pro Asp Arg Ala Arg Arg Leu Gln Leu Ser Pro Trp Glu Ser Ser
 210 215 220
 Val Val Asn Arg Leu Leu Thr Pro Thr His Ser Phe Leu Ala Arg Ser
 225 230 235 240
 Lys Ser Thr Ala Ala Leu Ser Gly Glu Ala Ala Ser Cys Ser Pro Ile
 245 250 255
 Ile Met Pro Tyr Lys Ala Ala His Ser Arg Asn Ser Met Asp Arg Pro
 260 265 270
 Lys Leu Phe Val Thr Pro Pro Glu Gly Ser Ser Arg Arg Arg Ile Ile
 275 280 285
 His Gly Thr Ala Ser Tyr Lys Lys Glu Arg Glu Arg Glu Asn Val Leu
 290 295 300
 Phe Leu Thr Ser Gly Thr Arg Arg Ala Val Ser Pro Ser Asn Pro Lys
 305 310 315 320
 Ala Arg Gln Pro Ala Arg Ser Arg Leu Trp Leu Pro Ser Lys Ser Leu
 325 330 335
 Pro His Leu Pro Gly Thr Pro Arg Pro Thr Ser Ser Leu Pro Pro Gly
 340 345 350
 Ser Val Lys Ala Ala Pro Ala Gln Val Arg Pro Pro Ser Pro Gly Asn
 355 360 365
 Ile Arg Pro Val Lys Arg Glu Val Lys Val Glu Pro Glu Lys Lys Asp
 370 375 380
 Pro Glu Lys Glu Pro Gln Lys Val Ala Asn Glu Pro Ser Leu Lys Gly
 385 390 395 400
 Arg Ala Pro Leu Val Lys Val Glu Glu Ala Thr Val Glu Glu Arg Thr
 405 410 415
 Pro Ala Glu Pro Glu Val Gly Pro Ala Ala Pro Ala Met Ala Pro Ala
 420 425 430

Pro Ala Ser Ala Pro Ala Pro Ala Ser Ala Pro Ala Pro Ala Pro Val
 435 440 445
 Pro Thr Pro Ala Met Val Ser Ala Pro Ser Ser Thr Val Asn Ala Ser
 450 455 460
 Ala Ser Val Lys Thr Ser Ala Gly Thr Thr Asp Pro Glu Glu Ala Thr
 465 470 475 480
 Arg Leu Leu Ala Glu Lys Arg Arg Leu Ala Arg Glu Gln Arg Glu Lys
 485 490 495
 Glu Glu Arg Glu Arg Arg Glu Gln Glu Leu Glu Arg Gln Lys Arg
 500 505 510
 Glu Glu Leu Ala Gln Arg Val Ala Glu Glu Arg Thr Thr Arg Arg Glu
 515 520 525
 Glu Glu Ser Arg Arg Leu Glu Ala Glu Gln Ala Arg Glu Lys Glu Glu
 530 535 540
 Gln Leu Gln Arg Gln Ala Glu Glu Arg Ala Leu Arg Glu Trp Glu Glu
 545 550 555 560
 Ala Glu Arg Ala Gln Arg Gln Lys Glu Glu Glu Ala Arg Val Arg Glu
 565 570 575
 Glu Ala Glu Arg Val Arg Gln Glu Arg Glu Lys His Phe Gln Arg Glu
 580 585 590
 Glu Gln Glu Arg Leu Glu Arg Lys Lys Arg Leu Glu Glu Ile Met Lys
 595 600 605
 Arg Thr Arg Arg Thr Glu Ala Thr Asp Lys Lys Thr Ser Asp Gln Arg
 610 615 620
 Asn Gly Asp Ile Ala Lys Gly Ala Leu Thr Gly Gly Thr Glu Val Ser
 625 630 635 640
 Ala Leu Pro Cys Thr Thr Asn Ala Pro Gly Asn Gly Lys Pro Val Gly
 645 650 655
 Ser Pro His Val Val Thr Ser His Gln Ser Lys Val Thr Val Glu Ser
 660 665 670
 Thr Pro Asp Leu Glu Lys Gln Pro Asn Glu Asn Gly Val Ser Val Gln
 675 680 685
 Asn Glu Asn Phe Glu Glu Ile Ile Asn Leu Pro Ile Gly Ser Lys Pro
 690 695 700
 Ser Arg Leu Asp Val Thr Asn Ser Glu Ser Pro Glu Ile Pro Leu Asn
 705 710 715 720
 Pro Ile Leu Ala Phe Asp Asp Glu Gly Thr Leu Gly Pro Leu Pro Gln
 725 730 735
 Val Asp Gly Val Gln Thr Gln Gln Thr Ala Glu Val Ile
 740 745 749

<210> 1105
 <211> 758
 <212> PRT
 <213> Homo sapiens

<400> 1105
 Met Pro Ala Leu Pro Leu Asp Gln Leu Gln Ile Thr His Lys Asp Pro
 1 5 10 15
 Lys Thr Gly Lys Leu Arg Thr Ser Pro Ala Leu His Pro Glu Gln Lys
 20 25 30
 Ala Asp Arg Tyr Phe Val Leu Tyr Lys Pro Pro Pro Lys Asp Asn Ile
 35 40 45
 Pro Ala Leu Val Glu Glu Tyr Leu Glu Arg Ala Thr Phe Val Ala Asn
 50 55 60
 Asp Leu Asp Trp Leu Leu Ala Leu Pro His Asp Lys Phe Trp Cys Gln
 65 70 75 80
 Val Ile Phe Asp Glu Thr Leu Gln Lys Cys Leu Asp Ser Tyr Leu Arg
 85 90 95
 Tyr Val Pro Arg Lys Phe Asp Glu Gly Val Ala Ser Ala Pro Glu Val
 100 105 110

Val	Asp	Met	Gln	Lys	Arg	Leu	His	Arg	Ser	Val	Phe	Leu	Thr	Phe	Leu	115	120	125
Arg	Met	Ser	Thr	His	Lys	Glu	Ser	Lys	Asp	His	Phe	Ile	Ser	Pro	Ser	130	135	140
Ala	Phe	Gly	Glu	Ile	Leu	Tyr	Asn	Asn	Phe	Leu	Phe	Asp	Ile	Pro	Lys	145	150	155
Ile	Leu	Asp	Leu	Cys	Val	Leu	Phe	Gly	Lys	Gly	Asn	Ser	Pro	Leu	Leu	165	170	175
Gln	Lys	Met	Ile	Gly	Asn	Ile	Phe	Thr	Gln	Gln	Pro	Ser	Tyr	Tyr	Ser	180	185	190
Asp	Leu	Asp	Glu	Thr	Leu	Pro	Thr	Ile	Leu	Gln	Val	Phe	Ser	Asn	Ile	195	200	205
Leu	Gln	His	Cys	Gly	Leu	Gln	Gly	Asp	Gly	Ala	Asn	Thr	Thr	Pro	Gln	210	215	220
Lys	Leu	Glu	Glu	Arg	Gly	Arg	Leu	Thr	Pro	Ser	Asp	Met	Pro	Leu	Leu	225	230	235
Glu	Leu	Lys	Asp	Ile	Val	Leu	Tyr	Leu	Cys	Asp	Thr	Cys	Thr	Thr	Leu	245	250	255
Trp	Ala	Phe	Leu	Asp	Ile	Phe	Pro	Leu	Ala	Cys	Gln	Thr	Phe	Gln	Lys	260	265	270
His	Asp	Phe	Cys	Tyr	Arg	Leu	Ala	Ser	Phe	Tyr	Glu	Ala	Ala	Ile	Pro	275	280	285
Glu	Met	Glu	Ser	Ala	Ile	Lys	Lys	Arg	Arg	Leu	Glu	Asp	Ser	Lys	Leu	290	295	300
Leu	Gly	Asp	Leu	Trp	Gln	Arg	Leu	Ser	His	Ser	Arg	Lys	Lys	Leu	Met	305	310	315
Glu	Ile	Phe	His	Ile	Ile	Leu	Asn	Gln	Ile	Cys	Leu	Leu	Pro	Ile	Leu	325	330	335
Glu	Ser	Ser	Cys	Asp	Asn	Ile	Gln	Gly	Phe	Ile	Glu	Glu	Phe	Leu	Gln	340	345	350
Ile	Phe	Ser	Ser	Leu	Leu	Gln	Glu	Lys	Arg	Phe	Leu	Arg	Asp	Tyr	Asp	355	360	365
Ala	Leu	Phe	Pro	Val	Ala	Glu	Asp	Ile	Ser	Leu	Leu	Gln	Gln	Ala	Ser	370	375	380
Ser	Val	Leu	Asp	Glu	Thr	Arg	Thr	Ala	Tyr	Ile	Leu	Gln	Ala	Val	Glu	385	390	395
Ser	Ala	Trp	Glu	Gly	Val	Asp	Arg	Arg	Lys	Ala	Thr	Asp	Ala	Lys	Asp	405	410	415
Pro	Ser	Val	Ile	Glu	Glu	Pro	Asn	Gly	Glu	Pro	Asn	Gly	Val	Thr	Val	420	425	430
Thr	Ala	Glu	Ala	Val	Ser	Gln	Ala	Ser	Ser	His	Pro	Glu	Asn	Ser	Glu	435	440	445
Glu	Glu	Glu	Cys	Met	Gly	Ala	Ala	Ala	Ala	Val	Gly	Pro	Ala	Met	Cys	450	455	460
Gly	Val	Glu	Leu	Asp	Ser	Leu	Ile	Ser	Gln	Val	Lys	Asp	Leu	Leu	Pro	465	470	475
Asp	Leu	Gly	Glu	Gly	Phe	Ile	Leu	Ala	Cys	Leu	Glu	Tyr	Tyr	His	Tyr	485	490	495
Asp	Pro	Glu	Gln	Val	Ile	Asn	Asn	Ile	Leu	Glu	Glu	Arg	Leu	Ala	Pro	500	505	510
Thr	Leu	Ser	Gln	Leu	Asp	Arg	Asn	Leu	Asp	Arg	Glu	Met	Lys	Pro	Asp	515	520	525
Pro	Thr	Pro	Leu	Leu	Thr	Ser	Arg	His	Asn	Val	Phe	Gln	Asn	Asp	Glu	530	535	540
Phe	Asp	Val	Phe	Ser	Arg	Asp	Ser	Val	Asp	Leu	Ser	Arg	Val	His	Lys	545	550	555
Gly	Lys	Ser	Thr	Arg	Lys	Glu	Glu	Asn	Thr	Arg	Ser	Leu	Leu	Asn	Asp	565	570	575
Lys	Arg	Ala	Val	Ala	Ala	Gln	Arg	Gln	Arg	Tyr	Glu	Gln	Tyr	Ser	Val	580	585	590
Val	Val	Glu	Glu	Val	Pro	Leu	Gln	Pro	Gly	Glu	Ser	Leu	Pro	Tyr	His	595	600	605
Ser	Val	Tyr	Tyr	Glu	Asp	Glu	Tyr	Asp	Asp	Thr	Tyr	Asp	Gly	Asn	Gln	610	615	620

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Val Gly Ala Asn Asp Ala Asp Ser Asp Asp Glu Leu Ile Ser Arg Arg
625          630          635          640
Pro Phe Thr Ile Pro Gln Val Leu Arg Thr Lys Val Pro Arg Glu Gly
          645          650          655
Gln Glu Glu Asp Asp Asp Asp Glu Glu Asp Asp Ala Asp Glu Glu Ala
          660          665          670
Pro Lys Pro Asp His Phe Val Gln Asp Pro Ala Val Leu Arg Glu Lys
          675          680          685
Ala Glu Ala Arg Arg Met Ala Phe Leu Ala Lys Lys Gly Tyr Arg His
          690          695          700
Asp Ser Ser Thr Ala Val Ala Gly Ser Pro Arg Gly His Gly Gln Ser
705          710          715          720
Arg Glu Thr Thr Gln Glu Arg Arg Lys Lys Glu Ala Asn Lys Ala Thr
          725          730          735
Arg Ala Asn His Asn Arg Arg Thr Met Ala Asp Arg Lys Arg Ser Lys
          740          745          750
Gly Met Ile Pro Ser *
          755          757

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<210> 1106
<211> 69
<212> PRT
<213> Homo sapiens

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```

<400> 1106
Met Asp Pro Glu Thr Cys Pro Cys Pro Ser Gly Gly Ser Cys Thr Cys
 1          5          10          15
Ala Asp Ser Cys Lys Cys Glu Gly Cys Lys Cys Thr Ser Cys Lys Lys
          20          25          30
Ser Cys Cys Ser Cys Cys Pro Ala Glu Cys Glu Lys Cys Ala Lys Asp
          35          40          45
Cys Val Cys Lys Gly Gly Glu Ala Ala Glu Ala Glu Ala Glu Lys Cys
 50          55          60
Ser Cys Cys Gln *
65          68

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<210> 1107
<211> 243
<212> PRT
<213> Homo sapiens

```

```

<400> 1107
Met Ala Ala Ile Ala Ala Ser Glu Val Leu Val Asp Ser Ala Glu Glu
 1          5          10          15
Gly Ser Leu Ala Ala Ala Ala Glu Leu Ala Ala Gln Lys Arg Glu Gln
          20          25          30
Arg Leu Arg Lys Phe Arg Glu Leu His Leu Met Arg Asn Glu Ala Arg
          35          40          45
Lys Leu Asn His Gln Glu Val Val Glu Glu Asp Lys Arg Leu Lys Leu
 50          55          60
Pro Ala Asn Trp Glu Ala Lys Lys Ala Arg Leu Glu Trp Glu Leu Lys
65          70          75          80
Glu Glu Glu Lys Lys Lys Glu Cys Ala Ala Arg Gly Glu Asp Tyr Glu
          85          90          95
Lys Val Lys Leu Leu Glu Ile Ser Ala Glu Asp Ala Glu Arg Trp Glu
          100          105          110
Arg Lys Lys Lys Arg Lys Asn Pro Asp Leu Gly Phe Ser Asp Tyr Ala
          115          120          125

```

Ala Ala Gln Leu Arg Gln Tyr His Arg Leu Thr Lys Gln Ile Lys Pro
 130 135 140
 Asp Met Glu Thr Tyr Glu Arg Leu Arg Glu Lys His Gly Glu Glu Phe
 145 150 155 160
 Phe Pro Thr Ser Asn Ser Leu Leu His Gly Thr His Val Pro Ser Thr
 165 170 175
 Glu Glu Ile Asp Arg Met Val Ile Asp Leu Glu Lys Gln Ile Glu Lys
 180 185 190
 Arg Asp Lys Tyr Ser Arg Arg Arg Pro Tyr Asn Asp Asp Ala Asp Ile
 195 200 205
 Asp Tyr Ile Asn Glu Arg Asn Ala Lys Phe Asn Lys Lys Ala Glu Arg
 210 215 220
 Phe Tyr Gly Lys Tyr Thr Ala Glu Ile Lys Gln Asn Leu Glu Arg Gly
 225 230 235 240
 Thr Ala Val
 243

<210> 1108
 <211> 202
 <212> PRT
 <213> Homo sapiens

<400> 1108
 Met Ala Ala Ile Ala Ala Ser Glu Val Leu Val Asp Ser Ala Glu Glu
 1 5 10 15
 Gly Ser Leu Ala Ala Ala Ala Glu Leu Ala Ala Gln Lys Arg Glu Gln
 20 25 30
 Arg Leu Arg Lys Phe Arg Glu Leu His Leu Met Arg Glu Cys Ala Ala
 35 40 45
 Arg Gly Glu Asp Tyr Glu Lys Val Lys Leu Leu Glu Ile Ser Ala Glu
 50 55 60
 Asp Ala Glu Arg Trp Glu Arg Lys Lys Lys Arg Lys Asn Pro Asp Leu
 65 70 75 80
 Gly Phe Ser Asp Tyr Ala Ala Ala Gln Leu Arg Gln Tyr His Arg Leu
 85 90 95
 Thr Lys Gln Ile Lys Pro Asp Met Glu Thr Tyr Glu Arg Leu Arg Glu
 100 105 110
 Lys His Gly Glu Glu Phe Phe Pro Thr Ser Asn Ser Leu Leu His Gly
 115 120 125
 Thr His Val Pro Ser Thr Glu Glu Ile Gly Arg Met Val Ile Asp Leu
 130 135 140
 Glu Lys Gln Ile Glu Lys Arg Asp Lys Tyr Ser Arg Arg Arg Pro Tyr
 145 150 155 160
 Asn Asp Asp Ala Asp Ile Asp Tyr Ile Asn Glu Arg Asn Ala Lys Phe
 165 170 175
 Asn Lys Lys Ala Glu Arg Phe Tyr Gly Lys Tyr Thr Ala Glu Ile Lys
 180 185 190
 Gln Asn Leu Glu Arg Gly Thr Ala Val *
 195 200 201

<210> 1109
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 1109
 Met Ser Leu Arg Pro Arg Arg Ala Cys Ala Gln Leu Leu Trp His Pro
 1 5 10 15

Ala Ala Gly Met Ala Ser Trp Ala Lys Gly Arg Ser Tyr Leu Ala Pro
 20 25 30
 Gly Leu Leu Gln Gly Gln Val Ala Ile Val Thr Gly Gly Ala Thr Gly
 35 40 45
 Ile Gly Lys Ala Ile Val Lys Glu Leu Leu Glu Leu Gly Ser Asn Val
 50 55 60
 Val Ile Ala Ser Arg Lys Leu Glu Arg Leu Lys Ser Ala Ala Asp Glu
 65 70 75 80
 Leu Gln Ala Asn Leu Pro Pro Thr Lys Gln Ala Arg Val Ile Pro Ile
 85 90 95
 Gln Cys Asn Ile Arg Asn Glu Glu Glu Val Asn Asn Leu Val Lys Ser
 100 105 110
 Thr Leu Asp Thr Phe Gly Lys Ile Asn Phe Leu Val Asn Asn Gly Gly
 115 120 125
 Gly Gln Phe Leu Ser Pro Ala Glu His Ile Ser Ser Lys Gly Trp His
 130 135 140
 Ala Val Leu Glu Thr Asn Leu Thr Gly Thr Phe Tyr Met Cys Lys Ala
 145 150 155 160
 Val Tyr Ser Ser Trp Met Lys Lys His Gly Gly Ser Ile Val Asn Ile
 165 170 175
 Ile Val Pro Thr Lys Ala Gly Phe Pro Leu Ala Val His Ser Gly Ala
 180 185 190
 Ala Arg Ala Gly Val Tyr Asn Leu Thr Lys Ser Leu Ala Leu Glu Trp
 195 200 205
 Ala Cys Ser Gly Ile Arg Ile Asn Cys Val Ala Pro Gly Val Ile Tyr
 210 215 220
 Ser Gln Thr Ala Val Glu Asn Tyr Gly Ser Trp Gly Gln Ser Phe Phe
 225 230 235 240
 Glu Gly Ser Phe Gln Lys Ile Pro Ala Lys Arg Ile Gly Val Pro Glu
 245 250 255
 Glu Val Ser Ser Val Val Cys Phe Leu Leu Ser Pro Ala Ala Ser Phe
 260 265 270
 Ile Thr Gly Gln Ser Val Asp Val Asp Gly Gly Arg Ser Leu Tyr Thr
 275 280 285
 His Ser Tyr Glu Val Pro Asp His Asp Asn Trp Pro Lys Gly Ala Gly
 290 295 300
 Asp Leu Ser Val Val Lys Lys Met Lys Glu Thr Phe Lys Glu Lys Ala
 305 310 315 320
 Lys Leu *
 322

<210> 1110
 <211> 1085
 <212> PRT
 <213> Homo sapiens

<400> 1110
 Met Gly Tyr Met Gly Glu Met Glu Val Gln Gly Pro Thr Arg Glu Ser
 1 5 10 15
 Gly Gln Ser Leu Pro Pro Gln Lys Lys Ala Tyr Leu Ser His Leu Ser
 20 25 30
 Thr Gly Ser Gly His Ile Glu Gly Asp Trp Ala Gly Arg Asn Arg Lys
 35 40 45
 Leu Leu Lys Pro Arg Ser Ile Gln Lys Ser Trp Phe Val Gln Phe Pro
 50 55 60
 Trp Leu Ile Met Asn Glu Glu Gln Thr Ala Leu Phe Cys Ser Ala Cys
 65 70 75 80
 Arg Glu Tyr Pro Ser Ile Arg Asp Lys Arg Ser Arg Leu Ile Glu Gly
 85 90 95
 Tyr Thr Gly Pro Phe Lys Val Glu Thr Leu Lys Tyr His Ala Lys Ser
 100 105 110

Lys	Ala	His	Met	Phe	Cys	Val	Asn	Ala	Leu	Ala	Ala	Arg	Asp	Pro	Ile
		115					120					125			
Trp	Ala	Ala	Arg	Phe	Arg	Ser	Ile	Arg	Asp	Pro	Pro	Gly	Asp	Val	Leu
	130					135					140				
Ala	Ser	Pro	Glu	Pro	Leu	Phe	Thr	Ala	Asp	Cys	Pro	Ile	Phe	Tyr	Pro
145					150					155					160
Pro	Gly	Pro	Leu	Gly	Gly	Phe	Asp	Ser	Met	Ala	Glu	Leu	Leu	Pro	Ser
				165					170					175	
Ser	Arg	Ala	Glu	Leu	Glu	Asp	Pro	Gly	Gly	Asp	Gly	Ala	Ile	Pro	Ala
		180						185					190		
Met	Tyr	Leu	Asp	Cys	Ile	Ser	Asp	Leu	Arg	Gln	Lys	Glu	Ile	Thr	Asp
	195						200					205			
Gly	Ile	His	Ser	Ser	Ser	Asp	Ile	Asn	Ile	Leu	Tyr	Asn	Asp	Ala	Val
	210					215					220				
Glu	Ser	Cys	Ile	Gln	Asp	Pro	Ser	Ala	Glu	Gly	Leu	Ser	Glu	Glu	Val
225					230					235					240
Pro	Val	Val	Phe	Glu	Glu	Leu	Pro	Val	Val	Phe	Glu	Asp	Val	Ala	Val
				245					250					255	
Tyr	Phe	Thr	Arg	Glu	Glu	Trp	Gly	Met	Leu	Asp	Lys	Arg	Gln	Lys	Glu
			260					265					270		
Leu	Tyr	Arg	Asp	Val	Met	Arg	Met	Asn	Tyr	Glu	Leu	Leu	Ala	Ser	Leu
	275						280					285			
Gly	Pro	Ala	Ala	Ala	Lys	Pro	Asp	Leu	Ile	Ser	Lys	Leu	Glu	Arg	Arg
	290					295					300				
Ala	Ala	Pro	Trp	Ile	Lys	Asp	Pro	Asn	Gly	Pro	Lys	Trp	Gly	Lys	Gly
305					310					315					320
Arg	Pro	Pro	Gly	Asn	Lys	Lys	Met	Val	Ala	Val	Arg	Glu	Ala	Asp	Thr
				325					330					335	
Gln	Ala	Ser	Ala	Ala	Asp	Ser	Ala	Leu	Leu	Pro	Gly	Ser	Pro	Val	Glu
		340						345				350			
Ala	Arg	Ala	Ser	Cys	Cys	Ser	Ser	Ser	Ile	Cys	Glu	Glu	Gly	Asp	Gly
	355						360					365			
Pro	Arg	Arg	Ile	Lys	Arg	Thr	Tyr	Arg	Pro	Arg	Ser	Ile	Gln	Arg	Ser
	370					375					380				
Trp	Phe	Gly	Gln	Phe	Pro	Trp	Leu	Val	Ile	Asp	Pro	Lys	Glu	Thr	Lys
385					390					395					400
Leu	Phe	Cys	Ser	Ala	Cys	Ile	Glu	Arg	Pro	Asn	Leu	His	Asp	Lys	Ser
			405					410					415		
Ser	Arg	Leu	Val	Arg	Gly	Tyr	Thr	Gly	Pro	Phe	Lys	Val	Glu	Thr	Leu
		420						425					430		
Lys	Tyr	His	Glu	Val	Ser	Lys	Ala	His	Arg	Leu	Cys	Val	Asn	Thr	Val
	435						440					445			
Glu	Ile	Lys	Glu	Asp	Thr	Pro	His	Thr	Ala	Leu	Val	Pro	Glu	Ile	Ser
	450					455					460				
Ser	Asp	Leu	Met	Ala	Asn	Met	Glu	His	Phe	Phe	Asn	Ala	Ala	Tyr	Ser
465					470				475						480
Ile	Ala	Tyr	His	Ser	Arg	Pro	Leu	Asn	Asp	Phe	Glu	Lys	Ile	Leu	Gln
			485						490					495	
Leu	Leu	Gln	Ser	Thr	Gly	Thr	Val	Ile	Leu	Gly	Lys	Tyr	Arg	Asn	Arg
		500						505					510		
Thr	Ala	Cys	Thr	Gln	Phe	Ile	Lys	Tyr	Ile	Ser	Glu	Thr	Leu	Lys	Arg
	515						520					525			
Glu	Ile	Leu	Glu	Asp	Val	Arg	Asn	Ser	Pro	Cys	Val	Ser	Val	Leu	Leu
	530					535					540				
Asp	Ser	Ser	Thr	Asp	Ala	Ser	Glu	Gln	Ala	Cys	Val	Gly	Ile	Tyr	Ile
545					550					555					560
Arg	Tyr	Phe	Lys	Gln	Met	Glu	Val	Lys	Glu	Ser	Tyr	Ile	Thr	Leu	Ala
			565						570					575	
Pro	Leu	Tyr	Ser	Glu	Thr	Ala	Asp	Gly	Tyr	Phe	Glu	Thr	Ile	Val	Ser
		580						585					590		
Ala	Leu	Asp	Glu	Leu	Asp	Ile	Pro	Phe	Arg	Lys	Pro	Gly	Trp	Val	Val
	595					600						605			
Gly	Leu	Gly	Thr	Asp	Gly	Ser	Ala	Met	Leu	Ser	Cys	Arg	Gly	Gly	Leu
	610					615					620				

Val	Glu	Lys	Phe	Gln	Glu	Val	Ile	Pro	Gln	Leu	Leu	Pro	Val	His	Cys	625	630	635	640
Val	Ala	His	Arg	Leu	His	Leu	Ala	Val	Val	Asp	Ala	Cys	Gly	Ser	Ile	645	650	655	
Asp	Leu	Val	Lys	Lys	Cys	Asp	Arg	His	Ile	Arg	Thr	Val	Phe	Lys	Phe	660	665	670	
Tyr	Gln	Ser	Ser	Asn	Lys	Arg	Leu	Asn	Glu	Leu	Gln	Glu	Gly	Ala	Ala	675	680	685	
Pro	Leu	Glu	Gln	Glu	Ile	Ile	Arg	Leu	Lys	Asp	Leu	Asn	Ala	Val	Arg	690	695	700	
Trp	Val	Ala	Ser	Arg	Arg	Arg	Thr	Leu	His	Ala	Leu	Leu	Val	Ser	Trp	705	710	715	720
Pro	Ala	Leu	Ala	Arg	His	Leu	Gln	Arg	Val	Ala	Glu	Ala	Gly	Gly	Gln	725	730	735	
Ile	Gly	His	Arg	Ala	Lys	Gly	Met	Leu	Lys	Leu	Met	Arg	Gly	Phe	His	740	745	750	
Phe	Val	Lys	Phe	Cys	His	Phe	Leu	Leu	Asp	Phe	Leu	Ser	Ile	Tyr	Arg	755	760	765	
Pro	Leu	Ser	Glu	Val	Cys	Gln	Lys	Glu	Ile	Val	Leu	Ile	Thr	Glu	Val	770	775	780	
Asn	Ala	Thr	Leu	Gly	Arg	Ala	Tyr	Val	Ala	Leu	Glu	Ser	Leu	Arg	His	785	790	795	800
Gln	Ala	Gly	Pro	Lys	Glu	Glu	Glu	Phe	Asn	Ala	Ser	Phe	Lys	Asp	Gly	805	810	815	
Arg	Leu	His	Gly	Ile	Cys	Leu	Asp	Lys	Leu	Glu	Val	Ala	Glu	Gln	Arg	820	825	830	
Phe	Gln	Ala	Asp	Arg	Glu	Arg	Thr	Val	Leu	Thr	Gly	Ile	Glu	Tyr	Leu	835	840	845	
Gln	Gln	Arg	Phe	Asp	Ala	Asp	Arg	Pro	Pro	Gln	Leu	Lys	Asn	Met	Glu	850	855	860	
Val	Phe	Asp	Thr	Met	Ala	Trp	Pro	Ser	Gly	Ile	Glu	Leu	Ala	Ser	Phe	865	870	875	880
Gly	Asn	Asp	Asp	Ile	Leu	Asn	Leu	Ala	Arg	Tyr	Phe	Glu	Cys	Ser	Leu	885	890	895	
Pro	Thr	Gly	Tyr	Ser	Glu	Glu	Ala	Leu	Leu	Glu	Glu	Trp	Leu	Gly	Leu	900	905	910	
Lys	Thr	Ile	Ala	Gln	His	Leu	Pro	Phe	Ser	Met	Leu	Cys	Lys	Asn	Ala	915	920	925	
Leu	Ala	Gln	His	Cys	Arg	Phe	Pro	Leu	Leu	Ser	Lys	Leu	Met	Ala	Val	930	935	940	
Val	Val	Cys	Val	Pro	Ile	Ser	Thr	Ser	Cys	Cys	Glu	Arg	Gly	Phe	Lys	945	950	955	960
Ala	Met	Asn	Arg	Ile	Arg	Thr	Asp	Glu	Arg	Thr	Lys	Leu	Ser	Asn	Glu	965	970	975	
Val	Leu	Asn	Met	Leu	Met	Met	Thr	Ala	Val	Asn	Gly	Val	Ala	Val	Thr	980	985	990	
Glu	Tyr	Asp	Pro	Gln	Pro	Ala	Ile	Gln	His	Trp	Tyr	Leu	Thr	Ser	Ser	995	1000	1005	
Gly	Arg	Arg	Phe	Ser	His	Val	Tyr	Thr	Cys	Ala	Gln	Val	Pro	Ala	Arg	1010	1015	1020	
Ser	Pro	Ala	Ser	Ala	Arg	Leu	Arg	Lys	Glu	Glu	Met	Gly	Ala	Leu	Tyr	1025	1030	1035	1040
Val	Glu	Glu	Pro	Arg	Thr	Gln	Lys	Pro	Pro	Ile	Leu	Pro	Ser	Arg	Glu	1045	1050	1055	
Ala	Ala	Glu	Val	Leu	Lys	Asp	Cys	Ile	Met	Glu	Pro	Pro	Glu	Arg	Leu	1060	1065	1070	
Leu	Tyr	Pro	His	Thr	Ser	Gln	Glu	Ala	Pro	Gly	Met	Ser				1075	1080	1085	

<210> 1111

<211> 354

<212> PRT

<213> Homo sapiens

<400> 1111

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Met Gly Cys Thr Leu Ser Ala Glu Glu Arg Ala Ala Leu Glu Arg Ser
 1          5          10          15
Lys Ala Ile Glu Lys Asn Leu Lys Glu Asp Gly Ile Ser Ala Ala Lys
          20          25          30
Asp Val Lys Leu Leu Leu Leu Gly Ala Gly Glu Ser Gly Lys Ser Thr
          35          40          45
Ile Val Lys Gln Met Lys Ile Ile His Glu Asp Gly Phe Ser Gly Glu
          50          55          60
Asp Val Lys Gln Tyr Lys Pro Val Val Tyr Ser Asn Thr Ile Gln Ser
          65          70          75          80
Leu Ala Ala Ile Val Arg Ala Met Asp Thr Leu Gly Ile Glu Tyr Gly
          85          90          95
Asp Lys Glu Arg Lys Ala Asp Ala Lys Met Val Cys Asp Val Val Ser
          100          105          110
Arg Met Glu Asp Thr Glu Pro Phe Ser Ala Glu Leu Leu Ser Ala Met
          115          120          125
Met Arg Leu Trp Gly Asp Ser Gly Ile Gln Glu Cys Phe Asn Arg Ser
          130          135          140
Arg Glu Tyr Gln Leu Asn Asp Ser Ala Lys Tyr Tyr Leu Asp Ser Leu
          145          150          155          160
Asp Arg Ile Gly Ala Ala Asp Tyr Gln Pro Thr Glu Gln Asp Ile Leu
          165          170          175
Arg Thr Arg Val Lys Thr Thr Gly Ile Val Glu Thr His Phe Thr Phe
          180          185          190
Lys Asn Leu His Phe Arg Leu Phe Asp Val Gly Gly Gln Arg Ser Glu
          195          200          205
Arg Lys Lys Trp Ile His Cys Phe Glu Asp Val Thr Ala Ile Ile Phe
          210          215          220
Cys Val Ala Leu Ser Gly Tyr Asp Gln Val Leu His Glu Asp Glu Thr
          225          230          235          240
Thr Asn Arg Met His Glu Ser Leu Lys Leu Phe Asp Ser Ile Cys Asn
          245          250          255
Asn Lys Trp Phe Thr Asp Thr Ser Ile Ile Leu Phe Leu Asn Lys Lys
          260          265          270
Asp Ile Phe Glu Glu Lys Ile Lys Lys Ser Pro Leu Thr Ile Cys Phe
          275          280          285
Pro Glu Tyr Thr Gly Pro Ser Ala Phe Thr Glu Ala Val Ala Tyr Ile
          290          295          300
Gln Ala Gln Tyr Glu Ser Lys Asn Lys Ser Ala His Lys Glu Ile Tyr
          305          310          315          320
Thr His Val Thr Cys Ala Thr Asp Thr Asn Asn Ile Gln Phe Val Phe
          325          330          335
Asp Ala Val Thr Asp Val Ile Ile Ala Lys Asn Leu Arg Gly Cys Gly
          340          345          350
Leu Tyr
          354

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<210> 1112

<211> 318

<212> PRT

<213> Homo sapiens

<400> 1112

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Glu Ala Arg Thr Ala Arg Glu Leu Thr Asp Gly Val Thr Asp Gly Leu
 1          5          10          15
Thr Met Ala Asp Gln Pro Lys Pro Ile Ser Pro Leu Lys Asn Leu Leu
          20          25          30

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Ala Gly Gly Phe Gly Gly Val Cys Leu Val Phe Val Gly His Pro Leu
 35 40 45
 Asp Thr Val Lys Val Arg Leu Gln Thr Gln Pro Pro Ser Leu Pro Gly
 50 55 60
 Gln Pro Pro Met Tyr Ser Gly Thr Phe Asp Cys Phe Arg Lys Thr Leu
 65 70 75 80
 Phe Arg Glu Gly Ile Thr Gly Leu Tyr Arg Gly Met Ala Ala Pro Ile
 85 90 95
 Ile Gly Val Thr Pro Met Phe Ala Val Cys Phe Phe Gly Phe Gly Leu
 100 105 110
 Gly Lys Lys Leu Gln Gln Lys His Pro Glu Asp Val Leu Ser Tyr Pro
 115 120 125
 Gln Leu Phe Ala Ala Gly Met Leu Ser Gly Val Phe Thr Thr Gly Ile
 130 135 140
 Met Thr Pro Gly Glu Arg Ile Lys Cys Leu Leu Gln Ile Gln Ala Ser
 145 150 155 160
 Ser Gly Glu Ser Lys Tyr Thr Gly Thr Leu Asp Cys Ala Lys Lys Leu
 165 170 175
 Tyr Gln Glu Phe Gly Ile Arg Gly Ile Tyr Lys Gly Thr Val Leu Thr
 180 185 190
 Leu Met Arg Asp Val Pro Ala Ser Gly Met Tyr Phe Met Thr Tyr Glu
 195 200 205
 Trp Leu Lys Asn Ile Phe Thr Pro Glu Gly Lys Arg Val Ser Glu Leu
 210 215 220
 Ser Ala Pro Arg Ile Leu Val Ala Gly Gly Ile Ala Gly Ile Phe Asn
 225 230 235 240
 Trp Ala Val Ala Ile Pro Pro Asp Val Leu Lys Ser Arg Phe Gln Thr
 245 250 255
 Ala Pro Pro Gly Lys Tyr Pro Asn Gly Phe Arg Asp Val Leu Arg Glu
 260 265 270
 Leu Ile Arg Asp Glu Gly Val Thr Ser Leu Tyr Lys Gly Phe Asn Ala
 275 280 285
 Val Met Ile Arg Ala Phe Pro Ala Asn Ala Ala Cys Phe Leu Gly Phe
 290 295 300
 Glu Val Ala Met Lys Phe Leu Asn Trp Ala Thr Pro Asn Leu
 305 310 315 318

<210> 1113
 <211> 667
 <212> PRT
 <213> Homo sapiens

<400> 1113
 Met Ala Asp Met Glu Asp Leu Phe Gly Ser Asp Ala Asp Ser Glu Ala
 1 5 10 15
 Glu Arg Lys Asp Ser Asp Ser Gly Ser Asp Ser Asp Ser Asp Gln Glu
 20 25 30
 Asn Ala Ala Ser Gly Ser Asn Ala Ser Gly Ser Glu Ser Asp Gln Asp
 35 40 45
 Glu Arg Gly Asp Ser Gly Gln Pro Ser Asn Lys Glu Leu Phe Gly Asp
 50 55 60
 Asp Ser Glu Asp Glu Gly Ala Ser His His Ser Gly Ser Asp Asn His
 65 70 75 80
 Ser Glu Arg Ser Asp Asn Arg Ser Glu Ala Ser Glu Arg Ser Asp His
 85 90 95
 Glu Asp Asn Asp Pro Ser Asp Val Asp Gln His Ser Gly Ser Glu Ala
 100 105 110
 Pro Asn Asp Asp Glu Asp Glu Gly His Arg Ser Asp Gly Gly Ser His
 115 120 125
 His Ser Glu Ala Glu Gly Ser Glu Lys Ala His Ser Asp Asp Glu Lys
 130 135 140

Trp	Gly	Arg	Glu	Asp	Lys	Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln
145					150					155					160
Asn	Ser	Asp	Asp	Glu	Glu	Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu
				165					170					175	
Gln	Asn	Ser	Asp	Asp	Asp	Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu
			180					185					190		
Arg	Pro	Gln	Leu	Ser	Asp	Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu
		195					200					205			
Lys	Ala	Asn	Ser	Asp	Asp	Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Asp
	210					215					220				
Glu	Lys	Gln	Asn	Ser	Asp	Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu
225					230					235					240
Glu	Lys	Met	Gln	Asn	Ser	Asp	Asp	Glu	Arg	Pro	Gln	Ala	Ser	Asp	Glu
				245					250					255	
Glu	His	Arg	His	Ser	Asp	Asp	Glu	Glu	Gln	Asp	His	Lys	Ser	Glu	
			260					265					270		
Ser	Ala	Arg	Gly	Ser	Asp	Ser	Glu	Asp	Glu	Val	Leu	Arg	Met	Lys	Arg
		275					280					285			
Lys	Asn	Ala	Ile	Ala	Ser	Asp	Ser	Glu	Ala	Asp	Ser	Asp	Thr	Glu	Val
	290					295					300				
Pro	Lys	Asp	Asn	Ser	Gly	Thr	Met	Asp	Leu	Phe	Gly	Gly	Ala	Asp	Asp
305					310					315					320
Ile	Ser	Ser	Gly	Ser	Asp	Gly	Glu	Asp	Lys	Pro	Pro	Thr	Pro	Gly	Gln
			325					330						335	
Pro	Val	Asp	Glu	Asn	Gly	Leu	Pro	Gln	Asp	Gln	Gln	Glu	Glu	Glu	Pro
			340					345					350		
Ile	Pro	Glu	Thr	Arg	Ile	Glu	Val	Glu	Ile	Pro	Lys	Val	Asn	Thr	Asp
		355					360						365		
Leu	Gly	Asn	Asp	Leu	Tyr	Phe	Val	Lys	Leu	Pro	Asn	Phe	Leu	Ser	Val
	370					375					380				
Glu	Pro	Arg	Pro	Phe	Asp	Pro	Gln	Tyr	Tyr	Glu	Asp	Glu	Phe	Glu	Asp
385					390					395					400
Glu	Glu	Met	Leu	Asp	Glu	Glu	Gly	Arg	Thr	Arg	Leu	Lys	Leu	Lys	Val
				405					410					415	
Glu	Asn	Thr	Ile	Arg	Trp	Arg	Ile	Arg	Asp	Glu	Glu	Gly	Asn	Glu	
			420					425					430		
Ile	Lys	Glu	Ser	Asn	Ala	Arg	Ile	Val	Lys	Trp	Ser	Asp	Gly	Ser	Met
		435					440					445			
Ser	Leu	His	Leu	Gly	Asn	Glu	Val	Phe	Asp	Val	Tyr	Lys	Ala	Pro	Leu
	450					455					460				
Gln	Gly	Asp	His	Asn	His	Leu	Phe	Ile	Arg	Gln	Gly	Thr	Gly	Leu	Gln
465					470					475					480
Gly	Gln	Ala	Val	Phe	Lys	Thr	Lys	Leu	Thr	Phe	Arg	Pro	His	Ser	Thr
				485					490					495	
Asp	Ser	Ala	Thr	His	Arg	Lys	Met	Thr	Leu	Ser	Leu	Ala	Asp	Arg	Cys
			500					505					510		
Ser	Lys	Thr	Gln	Lys	Ile	Arg	Ile	Leu	Pro	Met	Ala	Gly	Arg	Asp	Pro
		515					520					525			
Glu	Cys	Gln	Arg	Thr	Glu	Met	Ile	Lys	Lys	Glu	Glu	Glu	Arg	Leu	Arg
	530					535					540				
Ala	Ser	Ile	Arg	Arg	Glu	Ser	Gln	Gln	Arg	Arg	Met	Arg	Glu	Lys	Gln
545					550					555					560
His	Gln	Arg	Gly	Leu	Ser	Ala	Ser	Tyr	Leu	Glu	Pro	Asp	Arg	Tyr	Asp
				565					570					575	
Gln	Glu	Glu	Glu	Gly	Glu	Glu	Ser	Ile	Ser	Leu	Ala	Ala	Ile	Lys	Asn
			580					585					590		
Arg	Tyr	Lys	Gly	Gly	Ile	Arg	Glu	Glu	Arg	Ala	Arg	Ile	Tyr	Ser	Ser
		595					600					605			
Asp	Ser	Asp	Glu	Gly	Ser	Glu	Glu	Asp	Lys	Ala	Gln	Arg	Leu	Leu	Lys
	610					615					620				
Ala	Lys	Lys	Leu	Thr	Ser	Asp	Glu	Glu	Gly	Glu	Pro	Ser	Gly	Lys	Arg
625					630					635					640
Lys	Ala	Glu	Asp	Asp	Asp	Lys	Ala	Asn	Lys	Lys	His	Lys	Lys	Tyr	Val
				645					650					655	

Ile Ser Asp Glu Glu Glu Glu Asp Asp Asp *
 660 665 666

<210> 1114
 <211> 249
 <212> PRT
 <213> Homo sapiens

<400> 1114
 Met Ala Thr Asn Phe Leu Ala His Glu Lys Ile Trp Phe Asp Lys Phe
 1 5 10 15
 Lys Tyr Asp Asp Ala Glu Arg Arg Phe Tyr Glu Gln Met Asn Gly Pro
 20 25 30
 Val Ala Gly Ala Ser Arg Gln Glu Asn Gly Ala Ser Val Ile Leu Arg
 35 40 45
 Asp Ile Ala Arg Ala Arg Glu Asn Ile Gln Lys Ser Leu Ala Gly Ser
 50 55 60
 Ser Gly Pro Gly Ala Ser Ser Gly Thr Ser Gly Asp His Val Val Gln
 65 70 75 80
 Glu Leu Gln Gln Ala Ile Ser Lys Leu Glu Ala Arg Leu Asn Val Leu
 85 90 95
 Glu Lys Ser Ser Pro Gly His Arg Ala Thr Gly Pro Gln Thr Gln His
 100 105 110
 Val Ser Pro Met Arg Gln Val Glu Pro Pro Ala Lys Lys Pro Ala Thr
 115 120 125
 Pro Ala Glu Asp Asp Glu Asp Asp Asp Ile Asp Leu Phe Gly Ser Asp
 130 135 140
 Asn Glu Glu Glu Asp Lys Glu Ala Ala Gln Phe Arg Glu Glu Arg Leu
 145 150 155 160
 Arg His Tyr Ala Glu Lys Lys Ala Lys Lys Pro Ala Leu Gly Gly Gln
 165 170 175
 Val Leu His Pro Ala Trp Asn Val Lys Pro Trp Asp Asp Asp Asp Gly
 180 185 190
 His Gly Pro Ala Gly Gly Leu Cys Ala Leu Tyr Pro Ala Gly Arg Ala
 195 200 205
 Gly Leu Gly Gly Phe Gln Ala Gly Ala Arg Gly Leu Arg Tyr Pro Glu
 210 215 220
 Ala Thr Asp Ser Val Cys Gly Gly Gly Arg Gln Gly Gly Asp Arg Leu
 225 230 235 240
 Ala Gly Gly Gly Asp His Gln Val *
 245 248

<210> 1115
 <211> 262
 <212> PRT
 <213> Homo sapiens

<400> 1115
 Met Ala Thr Asn Phe Leu Ala His Glu Lys Ile Trp Phe Asp Lys Phe
 1 5 10 15
 Lys Tyr Asp Asp Ala Glu Arg Arg Phe Tyr Glu Gln Met Asn Gly Pro
 20 25 30
 Val Arg Gly Ala Ser Arg Gln Glu Asn Gly Ala Ser Val Ile Leu Arg
 35 40 45
 Asp Ile Ala Arg Ala Arg Glu Asn Ile Gln Lys Ser Leu Ala Gly Ser
 50 55 60
 Ser Gly Pro Gly Ala Ser Ser Gly Thr Ser Gly Asp His Val Val Gln
 65 70 75 80


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<210> 1116
<211> 1300
<212> PRT
<213> Homo sapiens
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	<400> 1116															
Met	Ala	Ala	Glu	Thr	Gln	Thr	Leu	Asn	Phe	Gly	Pro	Glu	Trp	Leu	Arg	
1				5					10					15		
Ala	Leu	Ser	Ser	Gly	Gly	Ser	Ile	Thr	Ser	Pro	Pro	Leu	Ser	Pro	Ala	
			20					25					30			
Leu	Pro	Lys	Tyr	Lys	Leu	Ala	Asp	Tyr	Arg	Tyr	Gly	Arg	Glu	Glu	Met	
		35					40					45				
Leu	Ala	Leu	Phe	Leu	Lys	Asp	Asn	Lys	Ile	Pro	Ser	Asp	Leu	Leu	Asp	
	50					55					60					
Lys	Glu	Phe	Leu	Pro	Ile	Leu	Gln	Glu	Glu	Pro	Leu	Pro	Pro	Leu	Ala	
65					70					75					80	
Leu	Val	Pro	Phe	Thr	Glu	Glu	Glu	Gln	Arg	Asn	Phe	Ser	Met	Ser	Val	
				85					90					95		
Asn	Ser	Ala	Ala	Val	Leu	Arg	Leu	Thr	Gly	Arg	Gly	Gly	Gly	Gly	Thr	
		100						105					110			
Val	Val	Gly	Ala	Pro	Arg	Gly	Arg	Ser	Ser	Ser	Arg	Gly	Arg	Gly	Arg	
		115					120					125				
Gly	Arg	Gly	Glu	Cys	Gly	Phe	Tyr	Gln	Arg	Ser	Phe	Asp	Glu	Val	Glu	
	130					135					140					
Gly	Val	Phe	Gly	Arg	Gly	Gly	Gly	Arg	Glu	Met	His	Arg	Ser	Gln	Ser	
145					150					155				160		
Trp	Glu	Glu	Arg	Gly	Asp	Arg	Arg	Phe	Glu	Lys	Pro	Gly	Arg	Lys	Asp	
				165					170					175		
Val	Gly	Arg	Pro	Asn	Phe	Glu	Glu	Gly	Gly	Pro	Thr	Ser	Val	Gly	Arg	
			180					185					190			
Lys	His	Glu	Phe	Ile	Arg	Ser	Glu	Ser	Glu	Asn	Trp	Arg	Ile	Phe	Arg	
	195						200					205				
Glu	Glu	Gln	Asn	Gly	Glu	Asp	Glu	Asp	Gly	Gly	Trp	Arg	Leu	Ala	Gly	
	210					215					220					
Ser	Arg	Arg	Asp	Gly	Glu	Arg	Trp	Arg	Pro	His	Ser	Pro	Asp	Gly	Pro	
225					230					235					240	

Arg	Ser	Ala	Gly	Trp	Arg	Glu	His	Met	Glu	Arg	Arg	Arg	Arg	Phe	Glu	245	250	255
Phe	Asp	Phe	Arg	Asp	Arg	Asp	Asp	Glu	Arg	Gly	Tyr	Arg	Arg	Val	Arg	260	265	270
Ser	Gly	Ser	Gly	Ser	Ile	Asp	Asp	Asp	Arg	Asp	Ser	Leu	Pro	Glu	Trp	275	280	285
Cys	Leu	Glu	Asp	Ala	Glu	Glu	Glu	Met	Gly	Thr	Phe	Asp	Ser	Ser	Gly	290	295	300
Ala	Phe	Leu	Ser	Leu	Lys	Lys	Val	Gln	Lys	Glu	Pro	Ile	Pro	Glu	Glu	305	310	315
Gln	Glu	Met	Asp	Phe	Arg	Pro	Val	Asp	Glu	Gly	Glu	Glu	Cys	Ser	Asp	325	330	335
Ser	Glu	Gly	Ser	His	Asn	Glu	Glu	Ala	Lys	Glu	Pro	Asp	Lys	Thr	Asn	340	345	350
Lys	Lys	Glu	Gly	Glu	Lys	Thr	Asp	Arg	Val	Gly	Val	Glu	Ala	Ser	Glu	355	360	365
Glu	Thr	Pro	Gln	Thr	Ser	Ser	Ser	Ser	Ala	Arg	Pro	Gly	Thr	Pro	Ser	370	375	380
Asp	His	Gln	Ser	Gln	Glu	Ala	Ser	Gln	Phe	Glu	Arg	Lys	Asp	Glu	Pro	385	390	395
Lys	Thr	Glu	Gln	Thr	Glu	Lys	Ala	Glu	Glu	Glu	Thr	Arg	Met	Glu	Asn	405	410	415
Ser	Leu	Pro	Ala	Lys	Val	Pro	Ser	Arg	Gly	Asp	Glu	Met	Val	Ala	Asp	420	425	430
Val	Gln	Gln	Pro	Leu	Ser	Gln	Ile	Pro	Ser	Asp	Thr	Ala	Ser	Pro	Leu	435	440	445
Leu	Ile	Leu	Pro	Pro	Pro	Val	Pro	Asn	Pro	Ser	Pro	Thr	Leu	Arg	Pro	450	455	460
Val	Glu	Thr	Pro	Val	Val	Gly	Ala	Pro	Gly	Met	Gly	Ser	Val	Ser	Thr	465	470	475
Glu	Pro	Asp	Asp	Glu	Glu	Gly	Leu	Lys	His	Leu	Glu	Gln	Gln	Ala	Glu	485	490	495
Lys	Met	Val	Ala	Tyr	Leu	Gln	Asp	Ser	Ala	Leu	Asp	Asp	Glu	Arg	Leu	500	505	510
Ala	Ser	Lys	Leu	Gln	Glu	His	Arg	Ala	Lys	Gly	Val	Ser	Ile	Pro	Leu	515	520	525
Met	His	Glu	Ala	Met	Gln	Lys	Trp	Tyr	Tyr	Lys	Asp	Pro	Gln	Gly	Glu	530	535	540
Ile	Gln	Gly	Pro	Phe	Asn	Asn	Gln	Glu	Met	Ala	Glu	Trp	Phe	Gln	Ala	545	550	555
Gly	Tyr	Phe	Thr	Met	Ser	Leu	Leu	Val	Lys	Arg	Ala	Cys	Asp	Glu	Ser	565	570	575
Phe	Gln	Pro	Leu	Gly	Asp	Ile	Met	Lys	Met	Trp	Gly	Arg	Val	Pro	Phe	580	585	590
Ser	Pro	Gly	Pro	Ala	Pro	Pro	Pro	His	Met	Gly	Glu	Leu	Asp	Gln	Glu	595	600	605
Arg	Leu	Thr	Arg	Gln	Gln	Glu	Leu	Thr	Ala	Leu	Tyr	Gln	Met	Gln	His	610	615	620
Leu	Gln	Tyr	Gln	Gln	Phe	Leu	Ile	Gln	Gln	Gln	Tyr	Ala	Gln	Val	Leu	625	630	635
Ala	Gln	Gln	Gln	Lys	Ala	Ala	Leu	Ser	Ser	Gln	Gln	Gln	Gln	Gln	Leu	645	650	655
Ala	Leu	Leu	Leu	Gln	Gln	Phe	Gln	Thr	Leu	Lys	Met	Arg	Ile	Ser	Asp	660	665	670
Gln	Asn	Ile	Ile	Pro	Ser	Val	Thr	Arg	Ser	Val	Ser	Val	Pro	Asp	Thr	675	680	685
Gly	Ser	Ile	Trp	Glu	Leu	Gln	Pro	Thr	Ala	Ser	Gln	Pro	Thr	Val	Trp	690	695	700
Glu	Gly	Gly	Ser	Val	Trp	Asp	Leu	Pro	Leu	Asp	Thr	Thr	Thr	Pro	Gly	705	710	715
Pro	Ala	Leu	Glu	Gln	Leu	Gln	Gln	Leu	Glu	Lys	Ala	Lys	Ala	Ala	Lys	725	730	735
Leu	Glu	Gln	Glu	Arg	Arg	Glu	Ala	Glu	Met	Arg	Ala	Lys	Arg	Glu	Glu	740	745	750

Glu	Glu	Arg	Lys	Arg	Gln	Glu	Glu	Leu	Arg	Arg	Gln	Gln	Glu	Glu	Ile	
		755					760					765				
Leu	Arg	Arg	Gln	Gln	Glu	Glu	Glu	Arg	Lys	Arg	Arg	Glu	Glu	Glu	Glu	
		770				775					780					
Leu	Ala	Arg	Arg	Lys	Gln	Glu	Glu	Ala	Leu	Arg	Arg	Gln	Arg	Glu	Gln	
		785			790					795					800	
Glu	Ile	Ala	Leu	Arg	Arg	Gln	Arg	Glu	Glu	Glu	Glu	Arg	Gln	Gln	Gln	
			805						810				815			
Glu	Glu	Ala	Leu	Arg	Arg	Leu	Glu	Glu	Arg	Arg	Arg	Glu	Glu	Glu	Glu	
			820					825					830			
Arg	Arg	Lys	Gln	Glu	Glu	Leu	Leu	Arg	Lys	Gln	Glu	Glu	Glu	Ala	Ala	
		835					840					845				
Lys	Trp	Ala	Arg	Glu	Glu	Glu	Glu	Ala	Gln	Arg	Arg	Leu	Glu	Glu	Asn	
		850				855					860					
Arg	Leu	Arg	Met	Glu	Glu	Glu	Ala	Ala	Arg	Leu	Arg	His	Glu	Glu	Glu	
				870						875					880	
Glu	Arg	Lys	Arg	Lys	Glu	Leu	Glu	Val	Gln	Arg	Gln	Lys	Glu	Leu	Met	
				885					890				895			
Arg	Gln	Arg	Gln	Gln	Gln	Gln	Glu	Ala	Leu	Arg	Arg	Leu	Gln	Gln	Gln	
			900					905					910			
Gln	Gln	Gln	Gln	Gln	Leu	Ala	Gln	Met	Lys	Leu	Pro	Ser	Ser	Ser	Thr	
		915					920					925				
Trp	Gly	Gln	Gln	Ser	Asn	Thr	Thr	Ala	Cys	Gln	Ser	Gln	Ala	Thr	Leu	
		930				935					940					
Ser	Leu	Ala	Glu	Ile	Gln	Lys	Leu	Glu	Glu	Glu	Arg	Glu	Arg	Gln	Leu	
		945			950					955					960	
Arg	Glu	Glu	Gln	Arg	Arg	Gln	Gln	Arg	Glu	Leu	Met	Lys	Ala	Leu	Gln	
				965					970					975		
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Lys	Leu	Ser	Gly	Trp	Gly	Asn	Val	
			980					985					990			
Ser	Lys	Pro	Ser	Gly	Thr	Thr	Lys	Ser	Leu	Leu	Glu	Ile	Gln	Gln	Glu	
		995					1000					1005				
Glu	Ala	Arg	Gln	Met	Gln	Lys	Gln	Gln	Gln	Gln	Gln	Gln	Gln	His	Gln	
		1010				1015					1020					
Gln	Pro	Asn	Arg	Ala	Arg	Asn	Asn	Thr	His	Ser	Asn	Leu	His	Thr	Ser	
		1025			1030					1035				1040		
Ile	Gly	Asn	Ser	Val	Trp	Gly	Ser	Ile	Asn	Thr	Gly	Pro	Pro	Asn	Gln	
			1045					1050					1055			
Trp	Ala	Ser	Asp	Leu	Val	Ser	Ser	Ile	Trp	Ser	Asn	Ala	Asp	Thr	Lys	
			1060					1065				1070				
Asn	Ser	Asn	Met	Gly	Phe	Trp	Asp	Asp	Ala	Val	Lys	Glu	Val	Gly	Pro	
		1075				1080					1085					
Arg	Asn	Ser	Thr	Asn	Lys	Asn	Lys	Asn	Asn	Ala	Ser	Leu	Ser	Lys	Ser	
		1090			1095						1100					
Val	Gly	Val	Ser	Asn	Arg	Gln	Asn	Lys	Lys	Val	Glu	Glu	Glu	Glu	Lys	
		1105			1110					1115				1120		
Leu	Leu	Lys	Leu	Phe	Gln	Gly	Val	Asn	Lys	Ala	Gln	Asp	Gly	Phe	Thr	
			1125					1130					1135			
Gln	Trp	Cys	Glu	Gln	Met	Leu	His	Ala	Leu	Asn	Thr	Ala	Asn	Asn	Leu	
			1140					1145				1150				
Asp	Val	Pro	Thr	Phe	Val	Ser	Phe	Leu	Lys	Glu	Val	Glu	Ser	Pro	Tyr	
		1155				1160					1165					
Glu	Val	His	Asp	Tyr	Ile	Arg	Ala	Tyr	Leu	Gly	Asp	Thr	Ser	Glu	Ala	
		1170			1175						1180					
Lys	Glu	Phe	Ala	Lys	Gln	Phe	Leu	Glu	Arg	Arg	Ala	Lys	Gln	Lys	Ala	
		1185			1190				1195					1200		
Asn	Gln	Gln	Arg	Gln	Gln	Gln	Gln	Leu	Pro	Gln	Gln	Gln	Gln	Gln	Gln	
			1205					1210					1215			
Pro	Pro	Gln	Gln	Pro	Pro	Gln	Gln	Pro	Gln	Gln	Gln	Asp	Ser	Val	Trp	
		1220						1225				1230				
Gly	Met	Asn	His	Ser	Thr	Leu	His	Ser	Val	Phe	Gln	Thr	Asn	Gln	Ser	
		1235				1240						1245				
Asn	Asn	Gln	Gln	Ser	Asn	Phe	Glu	Ala	Val	Gln	Ser	Gly	Lys	Lys	Lys	
		1250			1255						1260					

Lys Lys Gln Lys Met Val Arg Ala Asp Pro Ser Leu Leu Gly Phe Ser
 1265 1270 1275 1280
 Val Asn Ala Ser Ser Glu Arg Leu Asn Met Gly Glu Ile Glu Thr Leu
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 Asp Asp Tyr *
 1299

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 <212> PRT
 <213> Homo sapiens

<400> 1117
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 Leu Pro Lys Tyr Lys Leu Ala Asp Tyr Arg Tyr Gly Arg Glu Glu Met
 35 40 45
 Leu Ala Leu Phe Leu Lys Asp Asn Lys Ile Pro Ser Asp Leu Leu Asp
 50 55 60
 Lys Glu Phe Leu Pro Ile Leu Gln Glu Glu Pro Leu Pro Pro Leu Ala
 65 70 75 80
 Leu Val Pro Phe Thr Glu Glu Glu Gln Arg Asn Phe Ser Met Ser Val
 85 90 95
 Asn Ser Ala Ala Val Leu Arg Leu Thr Gly Arg Gly Gly Gly Gly Thr
 100 105 110
 Val Val Gly Ala Pro Arg Gly Arg Ser Ser Ser Arg Gly Arg Gly Arg
 115 120 125
 Gly Arg Gly Glu Cys Gly Phe Tyr Gln Arg Ser Phe Asp Glu Val Glu
 130 135 140
 Gly Val Phe Gly Arg Gly Gly Gly Arg Glu Met His Arg Ser Gln Ser
 145 150 155 160
 Trp Glu Glu Arg Gly Asp Arg Arg Phe Glu Lys Pro Gly Arg Lys Asp
 165 170 175
 Val Gly Arg Pro Asn Phe Glu Glu Gly Gly Pro Thr Ser Val Gly Arg
 180 185 190
 Lys His Glu Phe Ile Arg Ser Glu Ser Glu Asn Trp Arg Ile Phe Arg
 195 200 205
 Glu Glu Gln Asn Gly Glu Asp Glu Asp Gly Gly Trp Arg Leu Ala Gly
 210 215 220
 Ser Arg Arg Asp Gly Glu Arg Trp Arg Pro His Ser Pro Asp Gly Pro
 225 230 235 240
 Arg Ser Ala Gly Trp Arg Glu His Met Glu Arg Arg Arg Arg Phe Glu
 245 250 255
 Phe Asp Phe Arg Asp Arg Asp Asp Glu Arg Gly Tyr Arg Arg Val Arg
 260 265 270
 Ser Gly Ser Gly Ser Ile Asp Asp Asp Arg Asp Ser Leu Pro Glu Trp
 275 280 285
 Cys Leu Glu Asp Ala Glu Glu Glu Met Gly Thr Phe Asp Ser Ser Gly
 290 295 300
 Ala Phe Leu Ser Leu Lys Lys Val Gln Lys Glu Pro Ile Pro Glu Glu
 305 310 315 320
 Gln Glu Met Asp Phe Arg Pro Val Asp Glu Gly Glu Glu Cys Ser Asp
 325 330 335
 Ser Glu Gly Ser His Asn Glu Glu Ala Lys Glu Pro Asp Lys Thr Asn
 340 345 350
 Lys Lys Glu Gly Glu Lys Thr Asp Arg Val Gly Val Glu Ala Ser Glu
 355 360 365
 Glu Thr Pro Gln Thr Ser Ser Ser Ser Ala Arg Pro Gly Thr Pro Ser
 370 375 380

Asp	His	Gln	Ser	Gln	Glu	Ala	Ser	Gln	Phe	Glu	Arg	Lys	Asp	Glu	Pro
385					390					395					400
Lys	Thr	Glu	Gln	Thr	Glu	Lys	Ala	Glu	Glu	Glu	Thr	Arg	Met	Glu	Asn
				405					410						415
Ser	Leu	Pro	Ala	Lys	Val	Pro	Ser	Arg	Gly	Asp	Glu	Met	Val	Ala	Asp
			420					425					430		
Val	Gln	Gln	Pro	Leu	Ser	Gln	Ile	Pro	Ser	Asp	Thr	Ala	Ser	Pro	Leu
		435					440					445			
Leu	Ile	Leu	Pro	Pro	Pro	Val	Pro	Asn	Pro	Ser	Pro	Thr	Leu	Arg	Pro
	450					455					460				
Val	Glu	Thr	Pro	Val	Val	Gly	Ala	Pro	Gly	Met	Gly	Ser	Val	Ser	Thr
465					470					475					480
Glu	Pro	Asp	Asp	Glu	Glu	Gly	Leu	Lys	His	Leu	Glu	Gln	Gln	Ala	Glu
				485					490						495
Lys	Met	Val	Ala	Tyr	Leu	Gln	Asp	Ser	Ala	Leu	Asp	Asp	Glu	Arg	Leu
			500					505					510		
Ala	Ser	Lys	Leu	Gln	Glu	His	Arg	Ala	Lys	Gly	Val	Ser	Ile	Pro	Leu
		515					520					525			
Met	His	Glu	Ala	Met	Gln	Lys	Trp	Tyr	Tyr	Lys	Asp	Pro	Gln	Gly	Glu
	530					535					540				
Ile	Gln	Gly	Pro	Phe	Asn	Asn	Gln	Glu	Met	Ala	Glu	Trp	Phe	Gln	Ala
545					550					555					560
Gly	Tyr	Phe	Thr	Met	Ser	Leu	Leu	Val	Lys	Arg	Ala	Cys	Asp	Glu	Ser
				565					570						575
Phe	Gln	Pro	Leu	Gly	Asp	Ile	Met	Lys	Met	Trp	Gly	Arg	Val	Pro	Phe
			580				585						590		
Ser	Pro	Gly	Pro	Ala	Pro	Pro	Pro	His	Met	Gly	Glu	Leu	Asp	Gln	Glu
		595					600						605		
Arg	Leu	Thr	Arg	Gln	Gln	Glu	Leu	Thr	Ala	Leu	Tyr	Gln	Met	Gln	His
	610					615					620				
Leu	Gln	Tyr	Gln	Gln	Phe	Leu	Ile	Gln	Gln	Gln	Tyr	Ala	Gln	Val	Leu
625					630					635					640
Ala	Gln	Gln	Gln	Lys	Ala	Ala	Leu	Ser	Ser	Gln	Gln	Gln	Gln	Gln	Leu
				645					650						655
Ala	Leu	Leu	Leu	Gln	Gln	Phe	Gln	Thr	Leu	Lys	Met	Arg	Ile	Ser	Asp
			660					665					670		
Gln	Asn	Ile	Ile	Pro	Ser	Val	Thr	Arg	Ser	Val	Ser	Val	Pro	Asp	Thr
	675						680					685			
Gly	Ser	Ile	Trp	Glu	Leu	Gln	Pro	Thr	Ala	Ser	Gln	Pro	Thr	Val	Trp
	690					695					700				
Glu	Gly	Gly	Ser	Val	Trp	Asp	Leu	Pro	Leu	Asp	Thr	Thr	Thr	Pro	Gly
705					710					715					720
Pro	Ala	Leu	Glu	Gln	Leu	Gln	Gln	Leu	Glu	Lys	Ala	Lys	Ala	Ala	Lys
				725					730						735
Leu	Glu	Gln	Glu	Arg	Arg	Glu	Ala	Glu	Met	Arg	Ala	Lys	Arg	Glu	Glu
			740					745					750		
Glu	Glu	Arg	Lys	Arg	Gln	Glu	Glu	Leu	Arg	Arg	Gln	Gln	Glu	Glu	Ile
		755					760					765			
Leu	Arg	Arg	Gln	Gln	Glu	Glu	Glu	Arg	Lys	Arg	Arg	Glu	Glu	Glu	Glu
	770					775					780				
Leu	Ala	Arg	Arg	Lys	Gln	Glu	Glu	Ala	Leu	Arg	Arg	Gln	Arg	Glu	Gln
785					790					795					800
Glu	Ile	Ala	Leu	Arg	Arg	Gln	Arg	Glu	Glu	Glu	Glu	Arg	Gln	Gln	Gln
				805					810					815	
Glu	Glu	Ala	Leu	Arg	Arg	Leu	Glu	Glu	Arg	Arg	Arg	Glu	Glu	Glu	Glu
			820					825					830		
Arg	Arg	Lys	Gln	Glu	Glu	Leu	Leu	Arg	Lys	Gln	Glu	Glu	Glu	Ala	Ala
		835					840						845		
Lys	Trp	Ala	Arg	Glu	Glu	Glu	Glu	Ala	Gln	Arg	Arg	Leu	Glu	Glu	Asn
	850					855					860				
Arg	Leu	Arg	Met	Glu	Glu	Glu	Ala	Ala	Arg	Leu	Arg	His	Glu	Glu	Glu
865					870					875					880
Glu	Arg	Lys	Arg	Lys	Glu	Leu	Glu	Val	Gln	Arg	Gln	Lys	Glu	Leu	Met
				885					890						895

Arg Gln Arg Gln Gln Gln Gln Glu Ala Leu Arg Arg Leu Gln Gln Gln
 900 905 910
 Gln Gln Gln Gln Gln Leu Ala Gln Met Lys Gln Arg Arg Gln Gln Arg
 915 920 925
 Glu Leu Met Lys Ala Leu Gln Gln Gln Gln Gln Gln Gln Lys
 930 935 940
 Leu Ser Gly Trp Gly Asn Val Ser Lys Pro Ser Gly Thr Thr Lys Ser
 945 950 955 960
 Leu Leu Glu Ile Gln Gln Glu Glu Ala Arg Gln Met Gln Lys Gln Gln
 965 970 975
 Gln Gln Gln Gln Gln His Gln Gln Pro Asn Arg Ala Arg Asn Asn Thr
 980 985 990
 His Ser Asn Leu His Thr Ser Ile Gly Asn Ser Val Trp Gly Ser Ile
 995 1000 1005
 Asn Thr Gly Pro Pro Asn Gln Trp Ala Ser Asp Leu Val Ser Ser Ile
 1010 1015 1020
 Trp Ser Asn Ala Asp Thr Lys Asn Ser Asn Met Gly Phe Trp Asp Asp
 1025 1030 1035 1040
 Ala Val Lys Glu Val Gly Pro Arg Asn Ser Thr Asn Lys Asn Lys Asn
 1045 1050 1055
 Asn Ala Ser Leu Ser Lys Ser Val Gly Val Ser Asn Arg Gln Asn Lys
 1060 1065 1070
 Lys Val Glu Glu Glu Lys Leu Leu Lys Leu Phe Gln Gly Val Asn
 1075 1080 1085
 Lys Ala Gln Asp Gly Phe Thr Gln Trp Cys Glu Gln Met Leu His Ala
 1090 1095 1100
 Leu Asn Thr Ala Asn Asn Leu Asp Val Pro Thr Phe Val Ser Phe Leu
 1105 1110 1115 1120
 Lys Glu Val Glu Ser Pro Tyr Glu Val His Asp Tyr Ile Arg Ala Tyr
 1125 1130 1135
 Leu Gly Asp Thr Ser Glu Ala Lys Glu Phe Ala Lys Gln Phe Leu Glu
 1140 1145 1150
 Arg Arg Ala Lys Gln Lys Ala Asn Gln Gln Arg Gln Gln Gln Gln Leu
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 Pro Gln Gln Gln Gln Gln Gln Pro Pro Gln Gln Pro Pro Gln Gln Pro
 1170 1175 1180
 Gln Gln Gln Asp Ser Val Trp Gly Met Asn His Ser Thr Leu His Ser
 1185 1190 1195 1200
 Val Phe Gln Thr Asn Gln Ser Asn Asn Gln Gln Ser Asn Phe Glu Ala
 1205 1210 1215
 Val Gln Ser Gly Lys Lys Lys Lys Lys Gln Lys Met Val Arg Ala Asp
 1220 1225 1230
 Pro Ser Leu Leu Gly Phe Ser Val Asn Ala Ser Ser Glu Arg Leu Asn
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 Met Gly Glu Ile Glu Thr Leu Asp Asp Tyr *
 1250 1255 1258

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 <213> Homo sapiens

<400> 1118
 Leu His Pro Ala Ala Thr Ser Thr Ala Trp Leu Arg Val Pro Pro Gly
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 20 25 30
 Leu Leu Glu Ala Gln Ile Pro Leu Cys Ala Asn Leu Val Pro Val Pro
 35 40 45
 Ile Thr Asn Ala Thr Leu Asp Arg Ile Thr Gly Lys Trp Phe Tyr Ile
 50 55 60

Ala	Ser	Ala	Phe	Arg	Asn	Glu	Glu	Tyr	Asn	Lys	Ser	Val	Gln	Glu	Ile
65					70					75					80
Gln	Ala	Thr	Phe	Phe	Tyr	Phe	Thr	Pro	Asn	Lys	Thr	Glu	Asp	Thr	Ile
				85					90					95	
Phe	Leu	Arg	Glu	Tyr	Gln	Thr	Arg	Gln	Asp	Gln	Cys	Ile	Tyr	Asn	Thr
			100					105					110		
Thr	Tyr	Leu	Asn	Val	Gln	Arg	Glu	Asn	Gly	Thr	Ile	Ser	Arg	Tyr	Val
		115					120						125		
Gly	Gly	Gln	Glu	His	Phe	Ala	His	Leu	Leu	Ile	Leu	Arg	Asp	Thr	Lys
	130					135					140				
Thr	Tyr	Met	Leu	Ala	Phe	Asp	Val	Asn	Asp	Glu	Lys	Asn	Trp	Gly	Leu
145					150					155					160
Ser	Val	Tyr	Ala	Asp	Lys	Pro	Glu	Thr	Thr	Lys	Glu	Gln	Leu	Gly	Glu
				165					170					175	
Phe	Tyr	Glu	Ala	Leu	Asp	Cys	Leu	Arg	Ile	Pro	Lys	Ser	Asp	Val	Val
			180					185					190		
Tyr	Thr	Asp	Trp	Lys	Lys	Asp	Lys	Cys	Glu	Pro	Leu	Glu	Lys	Gln	His
		195				200						205			
Glu	Lys	Glu	Arg	Lys	Gln	Glu	Glu	Gly	Glu	Ser					
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 <213> Homo sapiens

<400> 1119

Met	Ala	Ile	Thr	Ala	Thr	Cys	Thr	Arg	Phe	Thr	Asp	Asp	Tyr	Gln	Leu
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Phe	Glu	Glu	Leu	Gly	Lys	Gly	Ala	Phe	Ser	Val	Val	Arg	Arg	Ser	Val
			20					25					30		
Lys	Lys	Thr	Ser	Thr	His	Glu	Tyr	Ala	Ala	Lys	Ile	Ile	Asn	Thr	Lys
		35				40						45			
Lys	Leu	Ser	Ala	Arg	Asp	His	Gln	Lys	Leu	Glu	Arg	Glu	Ala	Arg	Ile
	50					55					60				
Cys	Arg	Leu	Leu	Lys	His	Pro	Asn	Ile	Val	Arg	Leu	His	Asp	Ser	Ile
65					70					75					80
Ser	Glu	Glu	Gly	Phe	His	Tyr	Leu	Val	Phe	Asp	Leu	Val	Thr	Gly	Gly
				85					90					95	
Glu	Leu	Phe	Glu	Asp	Ile	Val	Ala	Arg	Glu	Tyr	Tyr	Ser	Glu	Ala	Asp
			100					105					110		
Ala	Ser	His	Cys	Ile	His	Gln	Ile	Leu	Glu	Ser	Val	Asn	His	Ile	His
		115				120						125			
Gln	His	Asp	Ile	Val	His	Arg	Asp	Leu	Lys	Pro	Glu	Asn	Leu	Leu	Leu
	130					135						140			
Ala	Ser	Lys	Cys	Lys	Gly	Ala	Ala	Val	Lys	Leu	Ala	Asp	Phe	Gly	Leu
145					150					155					160
Ala	Ile	Glu	Val	Gln	Gly	Glu	Gln	Gln	Ala	Trp	Phe	Gly	Phe	Ala	Gly
				165					170					175	
Thr	Pro	Gly	Tyr	Leu	Ser	Pro	Glu	Val	Leu	Arg	Lys	Asp	Pro	Tyr	Gly
			180					185					190		
Lys	Pro	Val	Asp	Ile	Trp	Ala	Cys	Gly	Val	Ile	Leu	Tyr	Ile	Leu	Leu
		195				200						205			
Val	Gly	Tyr	Pro	Pro	Phe	Trp	Asp	Glu	Asp	Gln	His	Lys	Leu	Tyr	Gln
	210					215					220				
Gln	Ile	Lys	Ala	Gly	Ala	Tyr	Asp	Phe	Pro	Ser	Pro	Glu	Trp	Asp	Thr
225					230					235					240
Val	Thr	Pro	Glu	Ala	Lys	Asn	Leu	Ile	Asn	Gln	Met	Leu	Thr	Ile	Asn
				245					250					255	
Pro	Ala	Lys	Arg	Ile	Thr	Ala	Asp	Gln	Ala	Leu	Lys	His	Pro	Trp	Val
			260					265						270	

Cys	Gln	Arg	Ser	Thr	Val	Ala	Ser	Met	Met	His	Arg	Gln	Glu	Thr	Val
	275						280					285			
Glu	Cys	Leu	Arg	Lys	Phe	Asn	Ala	Arg	Arg	Lys	Leu	Lys	Gly	Ala	Ile
	290					295					300				
Leu	Thr	Thr	Met	Leu	Val	Ser	Arg	Asn	Phe	Ser	Ala	Ala	Lys	Ser	Leu
305					310					315					320
Leu	Asn	Lys	Lys	Ser	Asp	Gly	Gly	Val	Lys	Pro	Gln	Ser	Asn	Asn	Lys
				325					330					335	
Asn	Ser	Leu	Val	Ser	Pro	Ala	Gln	Glu	Pro	Ala	Pro	Leu	Gln	Thr	Ala
			340					345					350		
Met	Glu	Pro	Gln	Thr	Thr	Val	Val	His	Asn	Ala	Thr	Asp	Gly	Ile	Lys
	355					360						365			
Gly	Ser	Thr	Glu	Ser	Cys	Asn	Thr	Thr	Thr	Glu	Asp	Glu	Asp	Leu	Lys
	370					375					380				
Val	Arg	Lys	Gln	Glu	Ile	Ile	Lys	Ile	Thr	Glu	Gln	Leu	Ile	Glu	Ala
385					390					395					400
Ile	Asn	Asn	Gly	Asp	Phe	Glu	Ala	Tyr	Thr	Lys	Ile	Cys	Asp	Pro	Gly
			405					410						415	
Leu	Thr	Ser	Phe	Glu	Pro	Glu	Ala	Leu	Gly	Asn	Leu	Val	Glu	Gly	Met
			420					425					430		
Asp	Phe	His	Lys	Phe	Tyr	Phe	Glu	Asn	Leu	Leu	Ser	Lys	Asn	Ser	Lys
	435						440					445			
Pro	Ile	His	Thr	Thr	Ile	Leu	Asn	Pro	His	Val	His	Val	Ile	Gly	Glu
	450					455					460				
Asp	Ala	Ala	Cys	Ile	Ala	Tyr	Ile	Arg	Leu	Thr	Gln	Tyr	Ile	Asp	Gly
465					470					475					480
Gln	Gly	Arg	Pro	Arg	Thr	Ser	Gln	Ser	Glu	Glu	Thr	Arg	Val	Trp	His
				485					490					495	
Arg	Arg	Asp	Gly	Lys	Trp	Leu	Asn	Val	His	Tyr	His	Cys	Ser	Gly	Ala
			500					505					510		
Pro	Ala	Ala	Pro	Leu	Gln										
		515			518										

<210> 1120
 <211> 326
 <212> PRT
 <213> Homo sapiens

<400> 1120

Met	Leu	Cys	Leu	Ile	Gly	Leu	Leu	Thr	Ile	Gly	Leu	Glu	Arg	Pro	Pro
1				5					10					15	
Gly	Gln	Val	Ile	Cys	Pro	Glu	Arg	Val	Gln	Leu	Ser	Gln	Pro	Gln	Asn
			20					25					30		
Trp	Asn	Phe	Ser	Gly	Ala	Gly	Gly	Ala	Trp	Ser	Leu	Asp	Phe	Ala	Glu
		35					40					45			
Gln	Leu	Lys	Trp	Ser	Ala	Glu	Leu	Ala	Arg	Leu	Gly	Glu	Ser	Ile	Met
	50					55					60				
Asp	Gly	Lys	Gln	Gly	Gly	Met	Asp	Gly	Ser	Lys	Pro	Ala	Gly	Pro	Arg
65					70					75					80
Asp	Phe	Pro	Gly	Ile	Arg	Leu	Leu	Ser	Asn	Pro	Leu	Met	Gly	Asp	Ala
				85					90					95	
Val	Ser	Asp	Trp	Ser	Pro	Met	His	Glu	Ala	Ala	Ile	His	Gly	His	Gln
			100					105					110		
Leu	Ser	Leu	Arg	Asn	Leu	Ile	Ser	Gln	Gly	Trp	Ala	Val	Asn	Ile	Ile
		115					120						125		
Thr	Ala	Asp	His	Val	Ser	Pro	Leu	His	Glu	Ala	Cys	Leu	Gly	Gly	His
	130					135					140				
Leu	Ser	Cys	Val	Lys	Ile	Leu	Leu	Lys	His	Gly	Ala	Gln	Val	Asn	Gly
145					150					155					160
Val	Thr	Ala	Asp	Trp	His	Thr	Pro	Leu	Phe	Asn	Ala	Cys	Val	Ser	Gly
				165					170					175	

Ser Trp Asp Cys Val Asn Leu Leu Leu Gln His Gly Ala Ser Val Gln
 180 185 190
 Pro Glu Ser Asp Leu Ala Ser Pro Ile His Glu Ala Ala Arg Arg Gly
 195 200 205
 His Val Glu Cys Val Asn Ser Leu Ile Ala Tyr Gly Gly Asn Ile Asp
 210 215 220
 His Lys Ile Ser His Leu Gly Thr Pro Leu Tyr Leu Ala Cys Glu Asn
 225 230 235 240
 Gln Gln Arg Ala Cys Val Lys Lys Leu Leu Glu Ser Gly Ala Asp Val
 245 250 255
 Asn Gln Gly Lys Gly Gln Asp Ser Pro Leu His Ala Val Ala Arg Thr
 260 265 270
 Ala Ser Glu Glu Leu Ala Cys Leu Leu Met Asp Phe Gly Ala Asp Thr
 275 280 285
 Gln Ala Lys Asn Ala Glu Gly Lys Arg Pro Val Glu Leu Val Pro Pro
 290 295 300
 Glu Ser Pro Leu Ala Gln Leu Phe Leu Glu Arg Glu Gly Ala Ser Leu
 305 310 315 320
 Pro Lys Pro Lys Pro *

<210> 1121
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 1121
 Asp Met Ala Gly Leu Met Thr Ile Val Thr Ser Leu Leu Phe Leu Gly
 1 5 10 15
 Val Cys Ala His His Ile Ile Pro Thr Gly Ser Val Val Leu Pro Ser
 20 25 30
 Pro Cys Cys Met Phe Phe Val Ser Lys Arg Ile Pro Glu Asn Arg Val
 35 40 45
 Val Ser Tyr Gln Leu Ser Ser Arg Ser Thr Cys Leu Lys Ala Gly Val
 50 55 60
 Ile Phe Thr Thr Lys Lys Gly Gln Gln Phe Cys Gly Asp Pro Lys Gln
 65 70 75 80
 Glu Trp Val Gln Arg Tyr Met Lys Asn Leu Asp Ala Lys Gln Lys Lys
 85 90 95
 Ala Ser Pro Arg Ala Arg Ala Val Ala Val Lys Gly Pro Val Gln Arg
 100 105 110
 Tyr Pro Gly Asn Gln Thr Thr Cys
 115 120

<210> 1122
 <211> 1338
 <212> PRT
 <213> Homo sapiens

<400> 1122
 Met Glu Ala Gly Gly Gly Gly Ala Leu Pro Ala Gly Val Glu Thr
 1 5 10 15
 Met Val Leu Thr Leu Gly Glu Ser Trp Pro Val Leu Val Gly Arg Arg
 20 25 30
 Phe Leu Ser Leu Ser Ala Ala Asp Gly Ser Asp Gly Ser His Asp Ser
 35 40 45
 Trp Asp Val Glu Arg Val Ala Glu Trp Pro Trp Leu Ser Gly Thr Ile
 50 55 60

Arg	Ala	Val	Ser	His	Thr	Asp	Val	Thr	Lys	Lys	Asp	Leu	Lys	Val	Cys
65					70					75					80
Val	Glu	Phe	Asp	Gly	Glu	Ser	Trp	Arg	Lys	Arg	Arg	Trp	Ile	Glu	Val
				85					90					95	
Tyr	Ser	Leu	Leu	Arg	Arg	Ala	Phe	Leu	Val	Glu	His	Asn	Leu	Val	Leu
			100					105					110		
Ala	Glu	Arg	Lys	Ser	Pro	Glu	Ile	Ser	Glu	Arg	Ile	Val	Gln	Trp	Pro
		115					120						125		
Ala	Ile	Thr	Tyr	Lys	Pro	Leu	Leu	Asp	Lys	Ala	Gly	Leu	Gly	Ser	Ile
	130					135					140				
Thr	Ser	Val	Arg	Phe	Leu	Gly	Asp	Gln	Gln	Arg	Val	Phe	Leu	Ser	Lys
145					150					155					160
Asp	Leu	Leu	Lys	Pro	Ile	Gln	Asp	Val	Asn	Ser	Leu	Arg	Leu	Ser	Leu
			165						170					175	
Thr	Asp	Asn	Gln	Ile	Val	Ser	Lys	Glu	Phe	Gln	Ala	Leu	Ile	Val	Lys
			180					185					190		
His	Leu	Asp	Glu	Ser	His	Leu	Leu	Lys	Gly	Asp	Lys	Asn	Leu	Val	Gly
	195					200						205			
Ser	Glu	Val	Lys	Ile	Tyr	Ser	Leu	Asp	Pro	Ser	Thr	Gln	Trp	Phe	Ser
	210					215					220				
Ala	Thr	Val	Val	Asn	Gly	Asn	Pro	Ala	Ser	Lys	Thr	Leu	Gln	Val	Asn
225				230						235					240
Cys	Glu	Glu	Ile	Pro	Ala	Leu	Lys	Ile	Val	Asp	Pro	Ser	Leu	Ile	His
			245						250					255	
Val	Glu	Val	Val	His	Asp	Asn	Leu	Val	Thr	Cys	Gly	Asn	Ser	Ala	Arg
			260				265						270		
Ile	Gly	Ala	Val	Lys	Arg	Lys	Ser	Ser	Glu	Asn	Asn	Gly	Thr	Leu	Val
	275						280					285			
Ser	Lys	Gln	Ala	Lys	Ser	Cys	Ser	Glu	Ala	Ser	Pro	Ser	Met	Cys	Pro
	290					295					300				
Val	Gln	Ser	Val	Pro	Thr	Thr	Val	Phe	Lys	Glu	Ile	Leu	Leu	Gly	Cys
305				310						315					320
Thr	Ala	Ala	Thr	Pro	Pro	Ser	Lys	Asp	Pro	Arg	Gln	Gln	Ser	Thr	Pro
			325						330					335	
Gln	Ala	Ala	Asn	Ser	Pro	Pro	Asn	Leu	Gly	Ala	Lys	Ile	Pro	Gln	Gly
			340					345					350		
Cys	His	Lys	Gln	Ser	Leu	Pro	Glu	Glu	Ile	Ser	Ser	Cys	Leu	Asn	Thr
	355					360						365			
Lys	Ser	Glu	Ala	Leu	Arg	Thr	Lys	Pro	Asp	Val	Cys	Lys	Ala	Gly	Leu
	370					375					380				
Leu	Ser	Lys	Ser	Ser	Gln	Ile	Gly	Thr	Gly	Asp	Leu	Lys	Ile	Leu	Thr
385					390					395					400
Glu	Pro	Lys	Gly	Ser	Cys	Thr	Gln	Pro	Lys	Thr	Asn	Thr	Asp	Gln	Glu
			405						410					415	
Asn	Arg	Leu	Glu	Ser	Val	Pro	Gln	Ala	Leu	Thr	Gly	Leu	Pro	Lys	Glu
			420					425					430		
Cys	Leu	Pro	Thr	Lys	Ala	Ser	Ser	Lys	Ala	Glu	Leu	Glu	Ile	Ala	Asn
	435					440						445			
Pro	Pro	Glu	Leu	Gln	Lys	His	Leu	Glu	His	Ala	Pro	Ser	Pro	Ser	Asp
	450					455					460				
Val	Ser	Asn	Ala	Pro	Glu	Val	Lys	Ala	Gly	Val	Asn	Ser	Asp	Ser	Pro
465				470						475					480
Asn	Asn	Cys	Ser	Gly	Lys	Lys	Val	Glu	Pro	Ser	Ala	Leu	Ala	Cys	Arg
			485					490						495	
Ser	Gln	Asn	Leu	Lys	Glu	Ser	Ser	Val	Lys	Val	Asp	Asn	Glu	Ser	Cys
			500					505					510		
Cys	Ser	Arg	Ser	Asn	Asn	Lys	Ile	Gln	Asn	Ala	Pro	Ser	Arg	Lys	Ser
	515					520						525			
Val	Leu	Thr	Asp	Pro	Ala	Lys	Leu	Lys	Lys	Leu	Gln	Gln	Ser	Gly	Glu
	530					535					540				
Ala	Phe	Val	Gln	Asp	Asp	Ser	Cys	Val	Asn	Ile	Val	Ala	Gln	Leu	Pro
545				550						555					560
Lys	Cys	Arg	Glu	Cys	Arg	Leu	Asp	Ser	Leu	Arg	Lys	Asp	Lys	Glu	Gln
			565					570						575	

2868

Glu Tyr Thr Arg Arg Asp Gly Lys Leu Asn Leu Ala Ser Arg Leu Pro
 1090 1095 1100
 Asn Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr
 1105 1110 1115 1120
 Gly Leu Ile Thr Pro Glu Asp Arg Lys Tyr Gly Thr Thr Asn Leu His
 1125 1130 1135
 Leu Asp Val Ser Asp Ala Ala Asn Val Met Val Tyr Val Gly Ile Pro
 1140 1145 1150
 Lys Gly Gln Cys Glu Gln Glu Glu Val Leu Lys Thr Ile Gln Asp
 1155 1160 1165
 Gly Asp Ser Asp Glu Leu Thr Ile Lys Arg Phe Ile Glu Gly Lys Glu
 1170 1175 1180
 Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Thr Glu Lys
 1185 1190 1195 1200
 Ile Arg Glu Phe Leu Lys Lys Val Ser Glu Gln Gly Gln Glu Asn
 1205 1210 1215
 Pro Ala Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Arg
 1220 1225 1230
 Ser Leu Arg Lys Arg Leu His Gln Glu Tyr Gly Val Gln Gly Trp Ala
 1235 1240 1245
 Ile Val Gln Phe Leu Gly Asp Val Val Phe Ile Pro Ala Gly Ala Pro
 1250 1255 1260
 His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe
 1265 1270 1275 1280
 Val Ser Pro Glu His Val Lys His Cys Phe Trp Leu Thr Gln Glu Phe
 1285 1290 1295
 Arg Tyr Leu Ser Gln Thr His Thr Asn His Glu Asp Lys Leu Gln Val
 1300 1305 1310
 Lys Asn Val Ile Tyr His Ala Val Lys Asp Ala Val Ala Met Leu Lys
 1315 1320 1325
 Ala Ser Glu Ser Ser Phe Gly Lys Pro *
 1330 1335 1337

<210> 1123
 <211> 568
 <212> PRT
 <213> Homo sapiens

<400> 1123
 Met Pro Ser Thr Asp Leu Leu Met Leu Lys Ala Phe Glu Pro Tyr Leu
 1 5 10 15
 Glu Ile Leu Glu Val Tyr Ser Thr Lys Ala Lys Asn Tyr Val Asn Gly
 20 25 30
 His Cys Thr Lys Tyr Glu Pro Trp Gln Leu Ile Ala Trp Ser Val Val
 35 40 45
 Trp Thr Leu Leu Ile Val Trp Gly Tyr Glu Phe Val Phe Gln Pro Glu
 50 55 60
 Ser Leu Trp Ser Arg Phe Lys Lys Lys Cys Phe Lys Leu Thr Arg Lys
 65 70 75 80
 Met Pro Ile Ile Gly Arg Lys Ile Gln Asp Lys Leu Asn Lys Thr Lys
 85 90 95
 Asp Asp Ile Ser Lys Asn Met Ser Phe Leu Lys Val Asp Lys Glu Tyr
 100 105 110
 Val Lys Ala Leu Pro Ser Gln Gly Leu Ser Ser Ser Ala Val Leu Glu
 115 120 125
 Lys Leu Lys Glu Tyr Ser Ser Met Asp Ala Phe Trp Gln Glu Gly Arg
 130 135 140
 Ala Ser Gly Thr Val Tyr Ser Gly Glu Glu Lys Leu Thr Glu Leu Leu
 145 150 155 160
 Val Lys Ala Tyr Gly Asp Phe Ala Trp Ser Asn Pro Leu His Pro Asp
 165 170 175


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<210> 1124
<211> 931
<212> PRT
<213> Homo sapiens
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2870

Tyr	Ser	Val	Pro	Glu	Glu	Thr	Asp	Lys	Gly	Ser	Phe	Val	Gly	Asn	Ile
	35						40					45			
Ala	Lys	Asp	Leu	Gly	Leu	Gln	Pro	Gln	Glu	Leu	Ala	Asp	Gly	Gly	Val
	50					55					60				
Arg	Ile	Val	Ser	Arg	Gly	Arg	Met	Pro	Leu	Phe	Ala	Leu	Asn	Pro	Arg
65					70					75				80	
Ser	Gly	Ser	Leu	Ile	Thr	Ala	Arg	Arg	Ile	Asp	Arg	Glu	Glu	Leu	Cys
				85					90					95	
Ala	Gln	Ser	Met	Pro	Cys	Leu	Val	Ser	Phe	Asn	Ile	Leu	Val	Glu	Asp
			100					105					110		
Lys	Met	Lys	Leu	Phe	Pro	Val	Glu	Val	Glu	Ile	Ile	Asp	Ile	Asn	Asp
	115						120					125			
Asn	Thr	Pro	Gln	Phe	Gln	Leu	Glu	Glu	Leu	Glu	Phe	Lys	Met	Asn	Glu
130						135					140				
Ile	Thr	Thr	Pro	Gly	Thr	Arg	Val	Ser	Leu	Pro	Phe	Gly	Gln	Asp	Leu
145					150					155					160
Asp	Val	Gly	Met	Asn	Ser	Leu	Gln	Ser	Tyr	Gln	Leu	Ser	Ser	Asn	Pro
				165					170					175	
His	Phe	Ser	Leu	Asp	Val	Gln	Gln	Gly	Ala	Asp	Gly	Pro	Gln	His	Pro
			180					185					190		
Glu	Met	Val	Leu	Gln	Ser	Pro	Leu	Asp	Arg	Glu	Glu	Glu	Ala	Val	His
	195						200					205			
His	Leu	Ile	Leu	Thr	Ala	Ser	Asp	Gly	Gly	Glu	Pro	Val	Arg	Ser	Gly
	210					215					220				
Thr	Leu	Arg	Ile	Tyr	Ile	Gln	Val	Val	Asp	Ala	Asn	Asp	Asn	Pro	Pro
225					230					235					240
Ala	Phe	Thr	Gln	Ala	Gln	Tyr	His	Ile	Asn	Val	Pro	Glu	Asn	Val	Pro
				245					250					255	
Leu	Gly	Thr	Gln	Leu	Leu	Met	Val	Asn	Ala	Thr	Asp	Pro	Asp	Glu	Gly
			260					265					270		
Ala	Asn	Gly	Glu	Val	Thr	Tyr	Ser	Phe	His	Asn	Val	Asp	His	Arg	Val
	275						280					285			
Ala	Gln	Ile	Phe	Arg	Leu	Asp	Ser	Tyr	Thr	Gly	Glu	Ile	Ser	Asn	Lys
	290					295					300				
Glu	Pro	Leu	Asp	Phe	Glu	Glu	Tyr	Lys	Met	Tyr	Ser	Met	Glu	Val	Gln
305					310					315					320
Ala	Gln	Asp	Gly	Ala	Gly	Leu	Met	Ala	Lys	Val	Lys	Val	Leu	Ile	Lys
				325					330					335	
Val	Leu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Glu	Val	Thr	Ile	Thr	Ser	Val
			340					345					350		
Thr	Thr	Ala	Val	Pro	Glu	Asn	Phe	Pro	Pro	Gly	Thr	Ile	Ile	Ala	Leu
			355				360					365			
Ile	Ser	Val	His	Asp	Gln	Asp	Ser	Gly	Asp	Asn	Gly	Tyr	Thr	Thr	Cys
	370					375					380				
Phe	Ile	Pro	Gly	Asn	Leu	Pro	Phe	Lys	Leu	Glu	Lys	Leu	Val	Asp	Asn
385					390					395					400
Tyr	Tyr	Arg	Leu	Val	Thr	Glu	Arg	Thr	Leu	Asp	Arg	Glu	Leu	Ile	Ser
				405					410					415	
Gly	Tyr	Asn	Ile	Thr	Ile	Thr	Ala	Ile	Asp	Gln	Gly	Thr	Pro	Ala	Leu
			420					425					430		
Ser	Thr	Glu	Thr	His	Ile	Ser	Leu	Leu	Val	Thr	Asp	Ile	Asn	Asp	Asn
			435				440					445			
Ser	Pro	Val	Phe	His	Gln	Asp	Ser	Tyr	Ser	Ala	Tyr	Ile	Pro	Glu	Asn
	450					455					460				
Asn	Pro	Arg	Gly	Ala	Ser	Ile	Phe	Ser	Val	Arg	Ala	His	Asp	Leu	Asp
465					470					475					480
Ser	Asn	Glu	Asn	Ala	Gln	Ile	Thr	Tyr	Ser	Leu	Ile	Glu	Asp	Thr	Ile
				485					490					495	
Gln	Gly	Ala	Pro	Leu	Ser	Ala	Tyr	Leu	Ser	Ile	Asn	Ser	Asp	Thr	Gly
			500					505					510		
Val	Leu	Tyr	Ala	Leu	Arg	Ser	Phe	Asp	Tyr	Glu	Gln	Phe	Arg	Asp	Met
			515				520					525			
Gln	Leu	Lys	Val	Met	Ala	Arg	Asp	Ser	Gly	Asp	Pro	Pro	Leu	Ser	Ser
	530					535					540				

Asn Val Ser Leu Ser Leu Phe Leu Leu Asp Gln Asn Asp Asn Ala Pro
 545 550 555 560
 Glu Ile Leu Tyr Pro Ala Leu Pro Thr Asp Gly Ser Thr Gly Val Glu
 565 570 575
 Leu Ala Pro Leu Ser Ala Glu Pro Gly Tyr Leu Val Thr Lys Val Val
 580 585 590
 Ala Val Asp Arg Asp Ser Gly Gln Asn Ala Trp Leu Ser Tyr Arg Leu
 595 600 605
 Leu Lys Ala Ser Glu Pro Gly Leu Phe Ser Val Gly Leu His Thr Gly
 610 615 620
 Glu Val Arg Thr Ala Arg Ala Leu Leu Asp Arg Asp Ala Leu Lys Gln
 625 630 635 640
 Ser Leu Val Val Ala Val Gln Asp His Gly Gln Pro Pro Leu Ser Ala
 645 650 655
 Thr Val Thr Leu Thr Val Ala Val Ala Asp Arg Ile Ser Asp Ile Leu
 660 665 670
 Ala Asp Leu Gly Ser Leu Glu Pro Ser Ala Lys Pro Asn Asp Ser Asp
 675 680 685
 Leu Thr Leu Tyr Leu Val Val Ala Ala Ala Val Ser Cys Val Phe
 690 695 700
 Leu Ala Phe Val Ile Val Leu Leu Ala His Arg Leu Arg Arg Trp His
 705 710 715 720
 Lys Ser Arg Leu Leu Gln Ala Ser Gly Gly Gly Leu Ala Ser Met Pro
 725 730 735
 Gly Ser His Phe Val Gly Val Asp Gly Val Arg Ala Phe Leu Gln Thr
 740 745 750
 Tyr Ser His Glu Val Ser Leu Thr Ala Asp Ser Arg Lys Ser His Leu
 755 760 765
 Ile Phe Pro Gln Pro Asn Tyr Ala Asp Thr Leu Ile Ser Gln Glu Ser
 770 775 780
 Cys Glu Lys Lys Gly Phe Leu Ser Ala Pro Gln Ser Leu Leu Glu Asp
 785 790 795 800
 Lys Lys Glu Pro Phe Ser Gln Gln Ala Pro Pro Asn Thr Asp Trp Arg
 805 810 815
 Phe Ser Gln Ala Gln Arg Pro Gly Thr Ser Gly Ser Gln Asn Gly Asp
 820 825 830
 Asp Thr Gly Thr Trp Pro Asn Asn Gln Phe Asp Thr Glu Met Leu Gln
 835 840 845
 Ala Met Ile Leu Ala Ser Ala Ser Glu Ala Ala Asp Gly Ser Ser Thr
 850 855 860
 Leu Gly Gly Gly Ala Gly Thr Met Gly Leu Ser Ala Arg Tyr Gly Pro
 865 870 875 880
 Gln Phe Thr Leu Gln His Val Pro Asp Tyr Arg Gln Asn Val Tyr Ile
 885 890 895
 Pro Gly Ser Asn Ala Thr Leu Thr Asn Ala Ala Gly Lys Arg Asp Gly
 900 905 910
 Lys Ala Pro Ala Gly Gly Asn Gly Asn Lys Lys Lys Ser Gly Lys Lys
 915 920 925
 Glu Lys Lys
 930 931

<210> 1125

<211> 1262

<212> PRT

<213> Homo sapiens

<400> 1125

Met Asp Gln Met Pro Pro Tyr Tyr Ala Ala Ser His Lys Leu Ile Ala
 1 5 10 15
 Leu Ala Ile Cys Lys Leu Ile His Ile Thr Ile Glu Pro Leu Tyr Arg
 20 25 30

Ser	Val	Thr	Ser	Trp	Ala	Val	Asp	His	Ala	Gly	Phe	Leu	Glu	Ser	Asp
		35					40					45			
Pro	Cys	Asp	Ser	Thr	Val	Gly	His	Leu	Leu	Ser	Arg	Val	Gly	Val	Pro
	50					55					60				
Lys	Gly	Ala	Lys	Gly	Ser	Pro	Val	Asn	Ala	Leu	Gln	Asn	Lys	Arg	Ala
65					70					75					80
Pro	Lys	Gln	Ala	Glu	Ser	Phe	Glu	Asp	Leu	Arg	Arg	Asp	Val	Phe	Asn
				85					90					95	
Met	Phe	Cys	Tyr	Leu	Gly	Pro	His	Leu	Ser	His	Asp	Pro	Ile	Leu	Phe
			100					105					110		
Ala	Lys	Val	Val	Arg	Ile	Gly	Lys	Ser	Phe	Met	Lys	Glu	Phe	Gln	Ser
		115					120					125			
Asp	Gly	Ser	Lys	Gln	Glu	Asp	Lys	Glu	Lys	Thr	Glu	Val	Ile	Leu	Ser
130						135					140				
Cys	Leu	Leu	Ser	Ile	Thr	Asp	Gln	Val	Leu	Leu	Pro	Ser	Leu	Ser	Leu
145					150					155					160
Met	Asp	Cys	Asn	Ala	Cys	Met	Ser	Glu	Glu	Leu	Trp	Gly	Met	Phe	Lys
			165					170						175	
Thr	Phe	Pro	Tyr	Gln	His	Arg	Tyr	Arg	Leu	Tyr	Gly	Gln	Trp	Lys	Asn
			180					185					190		
Glu	Thr	Tyr	Asn	Ser	His	Pro	Leu	Leu	Val	Lys	Val	Lys	Ala	Gln	Thr
		195					200					205			
Ile	Asp	Arg	Ala	Lys	Tyr	Ile	Met	Lys	Arg	Leu	Thr	Lys	Glu	Asn	Val
210						215					220				
Lys	Pro	Ser	Gly	Arg	Gln	Ile	Gly	Lys	Leu	Ser	His	Ser	Asn	Pro	Thr
225					230					235					240
Ile	Leu	Phe	Asp	Tyr	Val	Cys	Phe	Glu	Ile	Leu	Ser	Gln	Ile	Gln	Lys
				245					250					255	
Tyr	Asp	Asn	Leu	Ile	Thr	Pro	Val	Val	Asp	Ser	Leu	Lys	Tyr	Leu	Thr
			260					265					270		
Ser	Leu	Asn	Tyr	Asp	Val	Leu	Ala	Cys	Ile	Leu	Ser	Asn	Cys	Ile	Ile
		275					280					285			
Glu	Ala	Leu	Ala	Asn	Pro	Glu	Lys	Glu	Arg	Met	Lys	His	Asp	Asp	Thr
290						295					300				
Thr	Ile	Ser	Ser	Trp	Leu	Gln	Ser	Leu	Ala	Ser	Phe	Cys	Gly	Ala	Val
305					310					315					320
Phe	Arg	Lys	Tyr	Pro	Ile	Asp	Leu	Ala	Gly	Leu	Leu	Gln	Tyr	Val	Ala
				325					330					335	
Asn	Gln	Leu	Lys	Ala	Gly	Lys	Ser	Phe	Asp	Leu	Leu	Ile	Leu	Lys	Glu
			340					345					350		
Val	Val	Gln	Lys	Met	Ala	Gly	Ile	Glu	Ile	Thr	Glu	Glu	Met	Thr	Met
		355					360					365			
Glu	Gln	Leu	Glu	Ala	Met	Thr	Gly	Gly	Glu	Gln	Leu	Lys	Ala	Glu	Gly
370						375					380				
Gly	Tyr	Phe	Gly	Gln	Ile	Arg	Asn	Thr	Lys	Lys	Ser	Ser	Gln	Arg	Leu
385					390				395						400
Lys	Asp	Ala	Leu	Leu	Asp	His	Asp	Leu	Ala	Leu	Pro	Leu	Cys	Leu	Leu
				405					410					415	
Met	Ala	Gln	Gln	Arg	Asn	Gly	Val	Ile	Phe	Gln	Glu	Gly	Gly	Glu	Lys
			420					425					430		
His	Leu	Lys	Leu	Val	Gly	Lys	Leu	Tyr	Asp	Gln	Cys	His	Asp	Thr	Leu
		435					440					445			
Val	Gln	Phe	Gly	Gly	Phe	Leu	Ala	Ser	Asn	Leu	Ser	Thr	Glu	Asp	Tyr
	450					455					460				
Ile	Lys	Arg	Val	Pro	Ser	Ile	Asp	Val	Leu	Cys	Asn	Glu	Phe	His	Thr
465					470					475					480
Pro	His	Asp	Ala	Ala	Phe	Phe	Leu	Ser	Arg	Pro	Met	Tyr	Ala	His	His
				485					490					495	
Ile	Ser	Ser	Lys	Tyr	Asp	Glu	Leu	Lys	Lys	Ser	Glu	Lys	Gly	Ser	Lys
			500					505					510		
Gln	Gln	His	Lys	Val	His	Lys	Tyr	Ile	Thr	Ser	Cys	Glu	Met	Val	Met
		515					520					525			
Ala	Pro	Val	His	Glu	Ala	Val	Val	Ser	Leu	His	Val	Ser	Lys	Val	Trp
530						535					540				

Asp	Asp	Ile	Ser	Pro	Gln	Phe	Tyr	Ala	Thr	Phe	Trp	Ser	Leu	Thr	Met
545					550					555					560
Tyr	Asp	Leu	Ala	Val	Pro	His	Thr	Ser	Tyr	Glu	Arg	Glu	Val	Asn	Lys
				565					570					575	
Leu	Lys	Val	Gln	Met	Lys	Ala	Ile	Asp	Asp	Asn	Gln	Glu	Met	Pro	Pro
			580					585					590		
Asn	Lys	Lys	Lys	Lys	Glu	Lys	Glu	Arg	Cys	Thr	Ala	Leu	Gln	Asp	Lys
		595					600					605			
Leu	Leu	Glu	Glu	Glu	Lys	Lys	Gln	Met	Glu	His	Val	Gln	Arg	Val	Leu
	610					615					620				
Gln	Arg	Leu	Lys	Leu	Glu	Lys	Asp	Asn	Trp	Leu	Leu	Ala	Lys	Ser	Thr
625					630					635					640
Lys	Asn	Glu	Thr	Ile	Thr	Lys	Phe	Leu	Gln	Leu	Cys	Ile	Phe	Pro	Arg
				645					650					655	
Cys	Ile	Phe	Ser	Ala	Ile	Asp	Ala	Val	Tyr	Cys	Ala	Arg	Phe	Val	Glu
			660					665					670		
Leu	Val	His	Gln	Gln	Lys	Thr	Pro	Asn	Phe	Ser	Thr	Leu	Leu	Cys	Tyr
		675					680					685			
Asp	Arg	Val	Phe	Ser	Asp	Ile	Ile	Tyr	Thr	Val	Ala	Ser	Cys	Thr	Glu
	690					695					700				
Asn	Glu	Ala	Ser	Arg	Tyr	Gly	Arg	Phe	Leu	Cys	Cys	Met	Leu	Glu	Thr
705					710					715					720
Val	Thr	Arg	Trp	His	Ser	Asp	Arg	Ala	Thr	Tyr	Glu	Lys	Glu	Cys	Gly
				725					730					735	
Asn	Tyr	Pro	Gly	Phe	Leu	Thr	Ile	Leu	Arg	Ala	Thr	Gly	Phe	Asp	Gly
			740					745					750		
Gly	Asn	Lys	Ala	Asp	Gln	Leu	Asp	Tyr	Glu	Asn	Phe	Arg	His	Val	Val
		755					760					765			
His	Lys	Trp	His	Tyr	Lys	Leu	Thr	Lys	Ala	Ser	Val	His	Cys	Leu	Glu
	770					775					780				
Thr	Gly	Glu	Tyr	Thr	His	Ile	Arg	Asn	Ile	Leu	Ile	Val	Leu	Thr	Lys
785					790					795					800
Ile	Leu	Pro	Trp	Tyr	Pro	Lys	Val	Leu	Asn	Leu	Gly	Gln	Ala	Leu	Glu
				805					810					815	
Arg	Arg	Val	His	Lys	Ile	Cys	Gln	Glu	Glu	Lys	Glu	Lys	Arg	Pro	Asp
			820					825					830		
Leu	Tyr	Ala	Leu	Ala	Met	Gly	Tyr	Ser	Gly	Gln	Leu	Lys	Ser	Arg	Lys
		835				840						845			
Ser	Tyr	Met	Ile	Pro	Glu	Asn	Glu	Phe	His	His	Lys	Asp	Pro	Pro	Pro
	850					855					860				
Arg	Asn	Ala	Val	Ala	Ser	Val	Gln	Asn	Gly	Pro	Gly	Gly	Gly	Pro	Ser
865					870					875					880
Ser	Ser	Ser	Ile	Gly	Ser	Ala	Ser	Lys	Ser	Asp	Glu	Ser	Ser	Thr	Glu
				885					890					895	
Glu	Thr	Asp	Lys	Ser	Arg	Glu	Arg	Ser	Gln	Cys	Gly	Val	Lys	Ala	Val
			900					905					910		
Asn	Lys	Ala	Ser	Ser	Thr	Thr	Pro	Lys	Gly	Asn	Ser	Ser	Asn	Gly	Asn
		915					920						925		
Ser	Gly	Ser	Asn	Ser	Asn	Lys	Ala	Val	Lys	Glu	Asn	Asp	Lys	Glu	Lys
	930					935					940				
Gly	Lys	Glu	Lys	Glu	Lys	Glu	Lys	Lys	Glu	Lys	Thr	Pro	Ala	Thr	Thr
945					950					955					960
Pro	Glu	Ala	Arg	Val	Leu	Gly	Lys	Asp	Gly	Lys	Glu	Lys	Pro	Lys	Glu
				965					970					975	
Glu	Arg	Pro	Asn	Lys	Asp	Glu	Lys	Ala	Arg	Glu	Thr	Lys	Glu	Arg	Thr
			980					985					990		
Pro	Lys	Ser	Asp	Lys	Glu	Lys	Glu	Lys	Phe	Lys	Lys	Glu	Glu	Lys	Ala
		995				1000						1005			
Lys	Asp	Glu	Lys	Phe	Lys	Thr	Thr	Val	Pro	Asn	Ala	Glu	Ser	Lys	Ser
	1010					1015					1020				
Thr	Gln	Glu	Arg	Glu	Arg	Glu	Lys	Glu	Pro	Ser	Arg	Glu	Arg	Asp	Ile
1025					1030					1035					1040
Ala	Lys	Glu	Met	Lys	Ser	Lys	Glu	Asn	Val	Lys	Gly	Gly	Glu	Lys	Thr
				1045					1050					1055	

Pro Val Ser Gly Ser Leu Lys Ser Pro Val Pro Arg Ser Asp Ile Pro
 1060 1065 1070
 Glu Pro Glu Arg Glu Gln Lys Arg Arg Lys Ile Asp Thr His Pro Ser
 1075 1080 1085
 Pro Ser His Ser Ser Thr Val Lys Asp Ser Leu Ile Glu Leu Lys Glu
 1090 1095 1100
 Ser Ser Ala Lys Leu Tyr Ile Asn His Thr Pro Pro Pro Leu Ser Lys
 1105 1110 1115 1120
 Ser Lys Glu Arg Glu Met Asp Lys Lys Asp Leu Asp Lys Ser Arg Glu
 1125 1130 1135
 Arg Ser Arg Glu Arg Glu Lys Lys Asp Glu Lys Asp Arg Lys Glu Arg
 1140 1145 1150
 Lys Arg Asp His Ser Asn Asn Asp Arg Glu Val Pro Pro Asp Leu Thr
 1155 1160 1165
 Lys Arg Arg Lys Glu Glu Asn Gly Thr Met Gly Val Ser Lys His Lys
 1170 1175 1180
 Ser Glu Ser Pro Cys Glu Ser Pro Tyr Pro Asn Glu Lys Asp Lys Glu
 1185 1190 1195 1200
 Lys Asn Lys Ser Lys Ser Ser Gly Lys Glu Lys Gly Ser Asp Ser Phe
 1205 1210 1215
 Lys Ser Glu Lys Met Asp Lys Ile Ser Ser Gly Gly Lys Lys Glu Ser
 1220 1225 1230
 Arg His Asp Lys Glu Lys Ile Glu Lys Lys Glu Lys Arg Asp Ser Ser
 1235 1240 1245
 Gly Gly Lys Glu Glu Lys Lys Gln Ser Ser Asp Lys His Arg
 1250 1255 1260 1262

<210> 1126
 <211> 271
 <212> PRT
 <213> Homo sapiens

<400> 1126
 Met Ala Gly Pro Gln Gln Gln Pro Pro Tyr Leu His Leu Ala Glu Leu
 1 5 10 15
 Thr Ala Ser Gln Phe Leu Glu Ile Trp Lys His Phe Asp Ala Asp Gly
 20 25 30
 Asn Gly Tyr Ile Glu Gly Lys Glu Leu Glu Asn Phe Phe Gln Glu Leu
 35 40 45
 Glu Lys Ala Arg Lys Gly Ser Gly Met Met Ser Lys Ser Asp Asn Phe
 50 55 60
 Gly Glu Lys Met Lys Glu Phe Met Gln Lys Tyr Asp Lys Asn Ser Asp
 65 70 75 80
 Gly Lys Ile Glu Met Ala Glu Leu Ala Gln Ile Leu Pro Thr Glu Glu
 85 90 95
 Asn Phe Leu Leu Cys Phe Arg Gln His Val Gly Ser Ser Ala Glu Phe
 100 105 110
 Met Glu Ala Trp Arg Lys Tyr Asp Thr Asp Arg Ser Gly Tyr Ile Glu
 115 120 125
 Ala Asn Glu Leu Lys Gly Phe Leu Ser Asp Leu Leu Lys Lys Ala Asn
 130 135 140
 Arg Pro Tyr Asp Glu Pro Lys Leu Gln Glu Tyr Thr Gln Thr Ile Leu
 145 150 155 160
 Arg Met Phe Asp Leu Asn Gly Asp Gly Lys Leu Gly Leu Ser Glu Met
 165 170 175
 Ser Arg Leu Leu Pro Val Gln Glu Asn Phe Leu Leu Lys Phe Gln Gly
 180 185 190
 Met Lys Leu Thr Ser Glu Glu Phe Asn Ala Ile Phe Thr Phe Tyr Asp
 195 200 205
 Lys Asp Arg Ser Gly Tyr Ile Asp Glu His Glu Leu Asp Ala Leu Leu
 210 215 220

Lys Asp Leu Tyr Glu Lys Asn Lys Lys Glu Met Asn Ile Gln Gln Leu
 225 230 235 240
 Thr Asn Tyr Arg Lys Ser Val Met Ser Leu Ala Glu Ala Gly Lys Leu
 245 250 255
 Tyr Arg Lys Asp Leu Glu Ile Val Leu Cys Ser Glu Pro Pro Met
 260 265 270 271

<210> 1127
 <211> 293
 <212> PRT
 <213> Homo sapiens

<400> 1127
 Met Pro Leu His Val Lys Trp Pro Phe Pro Ala Val Pro Pro Leu Thr
 1 5 10 15
 Trp Thr Leu Ala Ser Ser Val Val Met Gly Leu Val Gly Thr Tyr Ser
 20 25 30
 Cys Phe Trp Thr Lys Tyr Met Asn His Leu Thr Val His Asn Arg Glu
 35 40 45
 Val Leu Tyr Glu Leu Ile Glu Lys Arg Gly Pro Ala Thr Pro Leu Ile
 50 55 60
 Thr Val Ser Asn His Gln Ser Cys Met Asp Asp Pro His Leu Trp Gly
 65 70 75 80
 Ile Leu Lys Leu Arg His Ile Trp Asn Leu Lys Leu Met Arg Trp Thr
 85 90 95
 Pro Ala Ala Ala Asp Ile Cys Phe Thr Lys Glu Leu His Ser His Phe
 100 105 110
 Phe Ser Leu Gly Lys Cys Val Pro Val Cys Arg Gly Ala Glu Phe Phe
 115 120 125
 Gln Ala Glu Asn Glu Gly Lys Gly Val Leu Asp Thr Gly Arg His Met
 130 135 140
 Pro Gly Ala Gly Lys Arg Arg Glu Lys Gly Asp Gly Val Tyr Gln Lys
 145 150 155 160
 Gly Met Asp Phe Ile Leu Glu Lys Leu Asn His Gly Asp Trp Val His
 165 170 175
 Ile Phe Pro Glu Gly Lys Val Asn Met Ser Ser Glu Phe Leu Arg Phe
 180 185 190
 Lys Trp Gly Ile Gly Arg Leu Ile Ala Glu Cys His Leu Asn Pro Ile
 195 200 205
 Ile Leu Pro Leu Trp His Val Gly Met Asn Asp Val Leu Pro Asn Ser
 210 215 220
 Pro Pro Tyr Phe Pro Arg Phe Gly Gln Lys Ile Thr Val Leu Ile Gly
 225 230 235 240
 Lys Pro Phe Ser Ala Leu Pro Val Leu Glu Arg Leu Arg Ala Glu Asn
 245 250 255
 Lys Ser Ala Val Glu Met Arg Lys Ala Leu Thr Asp Phe Ile Gln Glu
 260 265 270
 Glu Phe Gln His Leu Lys Thr Gln Ala Glu Gln Leu His Asn His Leu
 275 280 285
 Gln Pro Gly Arg *
 290 292

<210> 1128
 <211> 856
 <212> PRT
 <213> Homo sapiens

<400> 1128

Met	Ser	Ala	Pro	Ser	Glu	Glu	Glu	Glu	Tyr	Ala	Arg	Leu	Val	Met	Glu
1				5					10					15	
Ala	Gln	Pro	Glu	Trp	Leu	Arg	Ala	Glu	Val	Lys	Arg	Leu	Ser	His	Glu
		20						25					30		
Leu	Ala	Glu	Thr	Thr	Arg	Glu	Lys	Ile	Gln	Ala	Ala	Glu	Tyr	Gly	Leu
		35					40					45			
Ala	Val	Leu	Glu	Glu	Lys	His	Gln	Leu	Lys	Leu	Gln	Phe	Glu	Glu	Leu
		50				55					60				
Glu	Val	Asp	Tyr	Glu	Ala	Ile	Arg	Ser	Glu	Met	Glu	Gln	Leu	Lys	Glu
65					70					75					80
Ala	Phe	Gly	Gln	Ala	His	Thr	Asn	His	Lys	Lys	Val	Ala	Ala	Asp	Gly
				85					90					95	
Glu	Ser	Arg	Glu	Glu	Ser	Leu	Ile	Gln	Glu	Ser	Ala	Ser	Lys	Glu	Gln
			100					105					110		
Tyr	Tyr	Val	Arg	Lys	Val	Leu	Glu	Leu	Gln	Thr	Glu	Leu	Lys	Gln	Leu
		115					120						125		
Arg	Asn	Val	Leu	Thr	Asn	Thr	Gln	Ser	Glu	Asn	Glu	Arg	Leu	Ala	Ser
		130				135					140				
Val	Ala	Gln	Glu	Leu	Lys	Glu	Ile	Asn	Gln	Asn	Val	Glu	Ile	Gln	Arg
145					150					155					160
Gly	Arg	Leu	Arg	Asp	Asp	Ile	Lys	Glu	Tyr	Lys	Phe	Arg	Glu	Ala	Arg
				165					170					175	
Leu	Leu	Gln	Asp	Tyr	Ser	Glu	Leu	Glu	Glu	Glu	Asn	Ile	Ser	Leu	Gln
			180					185					190		
Lys	Gln	Val	Ser	Val	Leu	Arg	Gln	Asn	Gln	Val	Glu	Phe	Glu	Gly	Leu
		195					200					205			
Lys	His	Glu	Ile	Lys	Arg	Leu	Glu	Glu	Glu	Thr	Glu	Tyr	Leu	Asn	Ser
		210				215					220				
Gln	Leu	Glu	Asp	Ala	Ile	Arg	Leu	Lys	Glu	Ile	Ser	Glu	Arg	Gln	Leu
225					230					235					240
Glu	Glu	Ala	Leu	Glu	Thr	Leu	Lys	Thr	Glu	Arg	Glu	Gln	Lys	Asn	Ser
				245					250					255	
Leu	Arg	Lys	Glu	Leu	Ser	His	Tyr	Met	Ser	Ile	Asn	Asp	Ser	Phe	Tyr
			260					265					270		
Thr	Ser	His	Leu	His	Val	Ser	Leu	Asp	Gly	Leu	Lys	Phe	Ser	Asp	Asp
		275					280					285			
Ala	Ala	Glu	Pro	Asn	Asn	Asp	Ala	Glu	Ala	Leu	Val	Asn	Gly	Phe	Glu
		290				295					300				
His	Gly	Gly	Leu	Ala	Lys	Leu	Pro	Leu	Asp	Asn	Lys	Thr	Ser	Thr	Pro
305					310					315					320
Lys	Lys	Glu	Gly	Leu	Ala	Pro	Pro	Ser	Pro	Ser	Leu	Val	Ser	Asp	Leu
				325					330					335	
Leu	Ser	Glu	Leu	Asn	Ile	Ser	Glu	Ile	Gln	Lys	Leu	Lys	Gln	Gln	Leu
			340					345					350		
Met	Gln	Met	Glu	Arg	Glu	Lys	Ala	Gly	Leu	Leu	Ala	Thr	Leu	Gln	Asp
		355					360					365			
Thr	Gln	Lys	Gln	Leu	Glu	His	Thr	Arg	Gly	Ser	Leu	Ser	Glu	Gln	Gln
						375					380				
Glu	Lys	Val	Thr	Arg	Leu	Thr	Glu	Asn	Leu	Ser	Ala	Leu	Arg	Arg	Leu
385					390					395					400
Gln	Ala	Ser	Lys	Glu	Arg	Gln	Thr	Ala	Leu	Asp	Asn	Glu	Lys	Asp	Arg
				405					410					415	
Asp	Ser	His	Glu	Asp	Gly	Asp	Tyr	Tyr	Glu	Val	Asp	Ile	Asn	Gly	Pro
			420					425					430		
Glu	Ile	Leu	Ala	Cys	Lys	Tyr	His	Val	Ala	Val	Ala	Glu	Ala	Gly	Glu
		435					440					445			
Leu	Arg	Glu	Gln	Leu	Lys	Ala	Leu	Arg	Ser	Thr	His	Glu	Ala	Arg	Glu
						455					460				
Ala	Gln	His	Ala	Glu	Glu	Lys	Gly	Arg	Tyr	Glu	Ala	Glu	Gly	Gln	Ala
465					470					475					480
Leu	Thr	Glu	Lys	Val	Ser	Leu	Leu	Glu	Lys	Ala	Ser	Arg	Gln	Asp	Arg
				485					490					495	
Glu	Leu	Leu	Ala	Arg	Leu	Glu	Lys	Glu	Leu	Lys	Lys	Val	Ser	Asp	Val
			500					505						510	

Ala Gly Glu Thr Gln Gly Ser Leu Ser Val Ala Gln Asp Glu Leu Val
 515 520 525
 Thr Phe Ser Glu Glu Leu Ala Asn Leu Tyr His His Val Cys Met Cys
 530 535 540
 Asn Asn Glu Thr Pro Asn Arg Val Met Leu Asp Tyr Tyr Arg Glu Gly
 545 550 555 560
 Gln Gly Gly Ala Gly Arg Thr Ser Pro Gly Gly Arg Thr Ser Pro Glu
 565 570 575
 Ala Arg Gly Arg Arg Ser Pro Ile Leu Leu Pro Lys Gly Leu Leu Ala
 580 585 590
 Pro Glu Ala Gly Arg Ala Asp Gly Gly Thr Gly Asp Ser Ser Pro Ser
 595 600 605
 Pro Gly Ser Ser Leu Pro Ser Pro Leu Ser Asp Pro Arg Arg Glu Pro
 610 615 620
 Met Asn Ile Tyr Asn Leu Ile Ala Ile Ile Arg Asp Gln Ile Lys His
 625 630 635 640
 Leu Gln Ala Ala Val Asp Arg Thr Thr Glu Leu Ser Arg Gln Arg Ile
 645 650 655
 Ala Ser Gln Glu Leu Gly Pro Ala Val Asp Lys Asp Lys Glu Ala Leu
 660 665 670
 Met Glu Glu Ile Leu Lys Leu Lys Ser Leu Leu Ser Thr Lys Arg Glu
 675 680 685
 Gln Ile Thr Thr Leu Arg Thr Val Leu Lys Ala Asn Lys Gln Thr Ala
 690 695 700
 Glu Val Ala Leu Ala Asn Leu Lys Ser Lys Tyr Glu Asn Glu Lys Ala
 705 710 715 720
 Met Val Thr Glu Thr Met Met Lys Leu Arg Asn Glu Leu Lys Ala Leu
 725 730 735
 Lys Glu Asp Ala Ala Thr Phe Ser Ser Leu Arg Ala Met Phe Ala Thr
 740 745 750
 Arg Cys Asp Glu Tyr Ile Thr Gln Leu Asp Glu Met Gln Arg Gln Leu
 755 760 765
 Ala Ala Ala Glu Asp Glu Lys Lys Thr Leu Asn Ser Leu Leu Arg Met
 770 775 780
 Ala Ile Gln Gln Lys Leu Ala Leu Thr Gln Arg Leu Glu Leu Leu Glu
 785 790 795 800
 Leu Asp His Glu Gln Thr Arg Arg Gly Arg Ala Lys Ala Ala Pro Lys
 805 810 815
 Thr Lys Pro Ala Thr Pro Ser Val Ser His Thr Cys Ala Cys Ala Ser
 820 825 830
 Asp Arg Ala Glu Gly Thr Gly Leu Ala Asn Gln Val Phe Cys Ser Glu
 835 840 845
 Lys His Ser Ile Tyr Cys Asp *
 850 855

<210> 1129

<211> 310

<212> PRT

<213> Homo sapiens

<400> 1129

Met Val Lys Val Val Pro Ala Thr Arg Gly Asn Leu Pro Arg Ser Gln
 1 5 10 15
 Leu Thr Gly Thr His Gln His Cys Gln Pro Arg Glu Pro Lys Ile Thr
 20 25 30
 Ala Ser Glu Arg Leu Arg Arg Arg Pro Arg Ala Thr Ala Arg Leu Arg
 35 40 45
 Ala His Ala Ala Pro Pro Glu Pro Pro Leu Ala Val Phe Ala Pro Pro
 50 55 60
 Ser Asp Arg Lys Glu Leu Leu Ala Leu Pro Val Ala Cys Asp Pro Val
 65 70 75 80

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Ile Ala Ser Val Met Ser Trp Val Gln Ala Ala Ser Leu Ile Gln Gly
      85                      90                      95
Pro Gly Asp Lys Gly Asp Val Phe Asp Glu Glu Ala Asp Glu Ser Leu
      100                    105                    110
Leu Ala Gln Arg Glu Trp Gln Ser Asn Met Gln Arg Arg Val Lys Glu
      115                    120                    125
Gly Tyr Arg Asp Gly Ile Asp Ala Gly Lys Ala Val Thr Leu Gln Gln
      130                    135                    140
Gly Phe Asn Gln Gly Tyr Lys Lys Gly Ala Glu Val Ile Leu Asn Tyr
145      150                    155                    160
Gly Arg Leu Arg Gly Thr Leu Ser Ala Leu Leu Ser Trp Cys His Leu
      165                    170                    175
His Asn Asn Asn Ser Thr Leu Ile Asn Lys Ile Asn Asn Leu Leu Asp
      180                    185                    190
Ala Val Gly Gln Cys Glu Glu Tyr Val Leu Lys His Leu Lys Ser Ile
      195                    200                    205
Thr Pro Pro Ser His Val Val Asp Leu Leu Asp Ser Ile Glu Asp Met
      210                    215                    220
Asp Leu Cys His Val Val Pro Ala Glu Lys Lys Ile Asp Glu Ala Lys
225      230                    235                    240
Asp Glu Arg Leu Cys Glu Asn Asn Ala Glu Phe Asn Lys Asn Cys Ser
      245                    250                    255
Lys Ser His Ser Gly Ile Asp Cys Ser Tyr Val Glu Cys Cys Arg Thr
      260                    265                    270
Gln Glu His Ala His Ser Glu Asn Pro Ser Pro Thr Trp Ile Leu Glu
      275                    280                    285
Gln Thr Ala Ser Leu Val Lys Gln Leu Gly Leu Ser Val Asp Val Leu
      290                    295                    300
Gln His Leu Lys Gln Leu
305                      310

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<210> 1130
<211> 135
<212> PRT
<213> Homo sapiens

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<400> 1130
Ile Trp Pro Ser Arg Pro Arg Ile Arg His Glu Arg Pro Ala Ser Glu
 1      5      10      15
Arg Glu Cys Ser Leu Cys Gln Arg Leu Lys Arg Glu Leu Asn Met Gly
      20      25      30
Asp Val Glu Lys Gly Lys Lys Ile Phe Ile Met Lys Cys Ser Gln Cys
      35      40      45
His Thr Val Glu Lys Gly Gly Lys His Lys Ala Gly Pro Thr Leu His
      50      55      60
Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro Gly Tyr Ser Tyr Thr
      65      70      75      80
Ala Ala Asn Lys Asn Lys Gly Ile Ile Trp Gly Glu Asp Thr Leu Met
      85      90      95
Glu Tyr Leu Glu Asn Pro Lys Lys Tyr Ile Pro Gly Thr Lys Met Ile
      100     105     110
Phe Val Gly Ile Lys Lys Lys Glu Arg Ala Asp Leu Ile Ala Tyr
      115     120     125
Leu Lys Lys Ala Thr Asn Glu
130                      135

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<210> 1131
<211> 483
<212> PRT

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<213> Homo sapiens

<400> 1131

Met	His	Ala	Tyr	Val	Ser	Leu	Asp	Pro	Leu	Glu	Arg	Pro	Leu	Pro	Leu
1				5					10					15	
Pro	Gly	Asp	Gly	Arg	Gln	Ser	Arg	Arg	Asp	Ala	Glu	Glu	Pro	Ala	Ala
		20						25					30		
Arg	Ala	Arg	Cys	Arg	Arg	Gly	Thr	Ala	Phe	Arg	Ala	Gly	Pro	Ala	Ser
		35					40					45			
Leu	Ala	Gly	Glu	Asp	Ala	Leu	Val	Ser	Val	Met	Gly	Cys	Gly	Thr	Ser
	50					55				60					
Lys	Val	Leu	Pro	Glu	Pro	Pro	Lys	Asp	Val	Gln	Leu	Asp	Leu	Val	Lys
65					70					75					80
Lys	Val	Glu	Pro	Phe	Ser	Gly	Thr	Lys	Ser	Asp	Val	Tyr	Lys	His	Phe
				85					90					95	
Ile	Thr	Glu	Val	Asp	Ser	Val	Gly	Pro	Val	Lys	Ala	Gly	Phe	Pro	Ala
			100					105					110		
Ala	Ser	Gln	Tyr	Ala	His	Pro	Cys	Pro	Gly	Pro	Pro	Thr	Ala	Gly	His
		115					120					125			
Thr	Glu	Pro	Pro	Ser	Glu	Pro	Pro	Arg	Arg	Ala	Arg	Val	Ala	Lys	Tyr
	130					135					140				
Arg	Ala	Lys	Phe	Asp	Pro	Arg	Val	Thr	Ala	Lys	Tyr	Asp	Ile	Lys	Ala
145					150					155					160
Leu	Ile	Gly	Arg	Gly	Ser	Phe	Ser	Arg	Val	Val	Arg	Val	Glu	His	Arg
				165					170					175	
Ala	Thr	Arg	Gln	Pro	Tyr	Ala	Ile	Lys	Met	Ile	Glu	Thr	Lys	Tyr	Arg
			180					185					190		
Glu	Gly	Arg	Glu	Val	Cys	Glu	Ser	Glu	Leu	Arg	Val	Leu	Arg	Arg	Val
		195					200					205			
Arg	His	Ala	Asn	Ile	Ile	Gln	Leu	Val	Glu	Val	Phe	Glu	Thr	Gln	Glu
	210					215					220				
Arg	Val	Tyr	Met	Val	Met	Glu	Leu	Ala	Thr	Gly	Gly	Glu	Leu	Phe	Asp
225					230					235					240
Arg	Ile	Ile	Ala	Lys	Gly	Ser	Phe	Thr	Glu	Arg	Asp	Ala	Thr	Arg	Val
				245					250					255	
Leu	Gln	Met	Val	Leu	Asp	Gly	Val	Arg	Tyr	Leu	His	Ala	Leu	Gly	Ile
			260					265					270		
Thr	His	Arg	Asp	Leu	Lys	Pro	Glu	Asn	Leu	Leu	Tyr	Tyr	His	Pro	Gly
		275					280						285		
Thr	Asp	Ser	Lys	Ile	Ile	Ile	Thr	Asp	Phe	Gly	Leu	Ala	Ser	Ala	Arg
	290					295					300				
Lys	Lys	Gly	Asp	Asp	Cys	Leu	Met	Lys	Thr	Thr	Cys	Gly	Thr	Pro	Glu
305					310					315					320
Tyr	Ile	Ala	Pro	Glu	Val	Leu	Val	Arg	Lys	Pro	Tyr	Thr	Asn	Ser	Val
				325					330					335	
Asp	Met	Trp	Ala	Leu	Gly	Val	Ile	Ala	Tyr	Ile	Leu	Leu	Ser	Gly	Thr
			340					345					350		
Met	Pro	Phe	Glu	Asp	Asp	Asn	Arg	Thr	Arg	Leu	Tyr	Arg	Gln	Ile	Leu
		355					360					365			
Arg	Gly	Lys	Tyr	Ser	Tyr	Ser	Gly	Glu	Pro	Trp	Pro	Ser	Val	Ser	Asn
	370					375					380				
Leu	Ala	Lys	Asp	Phe	Ile	Asp	Arg	Leu	Leu	Thr	Val	Asp	Pro	Gly	Ala
385					390					395					400
Arg	Met	Thr	Ala	Leu	Gln	Ala	Leu	Arg	His	Pro	Trp	Val	Val	Ser	Met
				405					410					415	
Ala	Ala	Ser	Ser	Ser	Met	Lys	Asn	Leu	His	Arg	Ser	Ile	Ser	Gln	Asn
			420					425					430		
Leu	Leu	Lys	Arg	Ala	Ser	Ser	Arg	Cys	Gln	Ser	Thr	Lys	Ser	Ala	Gln
		435					440					445			
Ser	Thr	Arg	Ser	Ser	Arg	Ser	Thr	Arg	Ser	Asn	Lys	Ser	Arg	Arg	Val
	450					455					460				
Arg	Glu	Arg	Glu	Leu	Arg	Glu	Leu	Asn	Leu	Arg	Tyr	Gln	Gln	Gln	Tyr
465					470					475					480

Asn Gly *
482

<210> 1132
<211> 423
<212> PRT
<213> Homo sapiens

<400> 1132
Met Phe Ala Asp Leu Asp Tyr Asp Ile Glu Glu Asp Lys Leu Gly Ile
1 5 10 15
Pro Thr Val Pro Gly Lys Val Thr Leu Gln Lys Asp Ala Gln Asn Leu
20 25 30
Ile Gly Ile Ser Ile Gly Gly Gly Ala Gln Tyr Cys Pro Cys Leu Tyr
35 40 45
Ile Val Gln Val Phe Asp Asn Thr Pro Ala Ala Leu Asp Gly Thr Val
50 55 60
Ala Ala Gly Asp Glu Ile Thr Gly Val Asn Gly Arg Ser Ile Lys Gly
65 70 75 80
Lys Thr Lys Val Glu Val Ala Lys Met Ile Gln Glu Val Lys Gly Glu
85 90 95
Val Thr Ile His Tyr Asn Lys Leu Gln Ala Asp Pro Lys Gln Gly Met
100 105 110
Ser Leu Asp Ile Val Leu Lys Lys Val Lys His Arg Leu Val Glu Asn
115 120 125
Met Ser Ser Gly Thr Ala Asp Ala Leu Gly Leu Ser Arg Ala Ile Leu
130 135 140
Cys Asn Asp Gly Leu Val Lys Arg Leu Glu Glu Leu Glu Arg Thr Ala
145 150 155 160
Glu Leu Tyr Lys Gly Met Thr Glu His Thr Lys Asn Leu Leu Arg Ala
165 170 175
Phe Tyr Glu Leu Ser Gln Thr His Arg Gly Asn Gly Ile Pro Gln Ser
180 185 190
Cys Ala Phe Gly Asp Val Phe Ser Val Ile Gly Val Arg Glu Pro Gln
195 200 205
Pro Ala Ala Ser Glu Ala Phe Val Lys Phe Ala Asp Ala His Arg Ser
210 215 220
Ile Glu Lys Phe Gly Ile Arg Leu Leu Lys Thr Ile Lys Pro Met Leu
225 230 235 240
Thr Asp Leu Asn Thr Tyr Leu Asn Lys Ala Ile Pro Asp Thr Arg Leu
245 250 255
Thr Ile Lys Lys Tyr Leu Asp Val Lys Phe Glu Tyr Leu Ser Tyr Cys
260 265 270
Leu Lys Val Lys Glu Met Asp Asp Glu Glu Tyr Ser Cys Ile Ala Leu
275 280 285
Gly Glu Pro Leu Tyr Arg Val Ser Thr Gly Asn Tyr Glu Tyr Arg Leu
290 295 300
Ile Leu Arg Cys Arg Gln Glu Ala Arg Ala Arg Phe Ser Gln Met Arg
305 310 315 320
Lys Asp Val Leu Glu Lys Met Glu Leu Leu Asp Gln Lys His Val Gln
325 330 335
Asp Ile Val Phe Gln Leu Gln Arg Leu Val Ser Thr Met Ser Lys Tyr
340 345 350
Tyr Asn Asp Cys Tyr Ala Val Leu Arg Asp Ala Asp Val Phe Pro Ile
355 360 365
Glu Val Asp Leu Ala His Thr Thr Leu Ala Tyr Gly Leu Asn Gln Glu
370 375 380
Glu Phe Thr Asp Gly Glu Glu Glu Glu Glu Glu Asp Thr Ala Ala
385 390 395 400
Gly Glu Pro Ser Arg Asp Thr Arg Gly Ala Ala Gly Pro Leu Asp Lys
405 410 415

Gly Gly Ser Trp Cys Asp Ser
420 423

<210> 1133
<211> 323
<212> PRT
<213> Homo sapiens

<400> 1133
Met Asp Ser Lys Gln Gln Cys Val Lys Leu Asn Asp Gly His Phe Met
1 5 10 15
Pro Val Leu Gly Phe Gly Thr Tyr Ala Pro Pro Glu Val Pro Arg Ser
20 25 30
Lys Ala Leu Glu Val Thr Lys Leu Ala Ile Glu Ala Gly Phe Arg His
35 40 45
Ile Asp Ser Ala His Leu Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
50 55 60
Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
65 70 75 80
Tyr Thr Ser Lys Leu Trp Ser Thr Phe His Arg Pro Glu Leu Val Arg
85 90 95
Pro Ala Leu Glu Asn Ser Leu Lys Lys Ala Gln Leu Asp Tyr Val Asp
100 105 110
Leu Tyr Leu Ile His Ser Pro Met Ser Leu Lys Pro Gly Glu Glu Leu
115 120 125
Ser Pro Thr Asp Glu Asn Gly Lys Val Ile Phe Asp Ile Val Asp Leu
130 135 140
Cys Thr Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala
145 150 155 160
Lys Ser Ile Gly Val Ser Asn Phe Asn Arg Arg Gln Leu Glu Met Ile
165 170 175
Leu Asn Lys Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu
180 185 190
Cys His Pro Tyr Phe Asn Arg Ser Lys Leu Leu Asp Phe Cys Lys Ser
195 200 205
Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser Gln Arg Asp
210 215 220
Lys Arg Trp Val Asp Pro Asn Ser Pro Val Leu Leu Glu Asp Pro Val
225 230 235 240
Leu Cys Ala Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala
245 250 255
Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr
260 265 270
Asn Glu Gln Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu
275 280 285
Thr Ala Glu Asp Met Lys Ala Ile Asp Gly Leu Asp Arg Asn Leu His
290 295 300
Tyr Phe Asn Ser Asp Ser Phe Ala Ser His Pro Asn Tyr Pro Tyr Ser
305 310 315 320
Asp Glu Tyr
323

<210> 1134
<211> 284
<212> PRT
<213> Homo sapiens

<400> 1134

Met	Ser	Met	Leu	Pro	Ser	Phe	Gly	Phe	Thr	Gln	Glu	Gln	Val	Ala	Cys
1				5					10					15	
Val	Cys	Glu	Val	Leu	Gln	Gln	Gly	Gly	Asn	Leu	Glu	Arg	Leu	Gly	Arg
			20					25						30	
Phe	Leu	Trp	Ser	Leu	Pro	Ala	Cys	Asp	His	Leu	His	Lys	Asn	Glu	Ser
		35					40					45			
Val	Leu	Lys	Ala	Lys	Ala	Val	Val	Ala	Phe	His	Arg	Gly	Asn	Phe	Arg
	50					55					60				
Glu	Leu	Tyr	Lys	Ile	Leu	Glu	Ser	His	Gln	Phe	Ser	Pro	His	Asn	His
65					70				75					80	
Pro	Lys	Leu	Gln	Gln	Leu	Trp	Leu	Lys	Ala	His	Tyr	Val	Glu	Ala	Glu
				85					90					95	
Lys	Leu	Arg	Gly	Arg	Pro	Leu	Gly	Ala	Val	Gly	Lys	Tyr	Arg	Val	Arg
			100					105						110	
Arg	Lys	Phe	Pro	Leu	Pro	Arg	Thr	Ile	Trp	Asp	Gly	Glu	Glu	Thr	Ser
		115					120					125			
Tyr	Cys	Phe	Lys	Glu	Lys	Ser	Arg	Gly	Val	Leu	Arg	Glu	Trp	Tyr	Ala
	130					135					140				
His	Asn	Pro	Tyr	Pro	Ser	Pro	Arg	Glu	Lys	Arg	Glu	Leu	Ala	Glu	Ala
145					150					155					160
Thr	Gly	Leu	Thr	Thr	Thr	Gln	Val	Ser	Asn	Trp	Phe	Lys	Asn	Arg	Arg
				165					170					175	
Gln	Arg	Asp	Arg	Ala	Ala	Glu	Ala	Lys	Glu	Arg	Glu	Asn	Thr	Glu	Asn
			180					185					190		
Asn	Asn	Ser	Ser	Ser	Asn	Lys	Gln	Asn	Gln	Leu	Ser	Pro	Leu	Glu	Gly
		195					200					205			
Gly	Lys	Pro	Leu	Met	Ser	Ser	Ser	Glu	Glu	Glu	Phe	Ser	Pro	Pro	Gln
	210					215					220				
Ser	Pro	Asp	Gln	Asn	Ser	Val	Leu	Leu	Leu	Gln	Gly	Asn	Met	Gly	His
225					230					235				240	
Ala	Arg	Ser	Ser	Asn	Tyr	Ser	Leu	Pro	Gly	Leu	Thr	Ala	Ser	Gln	Pro
				245					250					255	
Ser	His	Gly	Leu	Gln	Thr	His	Gln	His	Gln	Leu	Gln	Asp	Ser	Leu	Leu
			260				265						270		
Gly	Pro	Leu	Thr	Ser	Ser	Leu	Val	Asp	Leu	Gly	Ser				
		275					280				284				

<210> 1135
 <211> 482
 <212> PRT
 <213> Homo sapiens

<400> 1135

Met	Ala	Asp	Asn	Asp	Thr	Asp	Arg	Asn	Gln	Thr	Glu	Lys	Leu	Leu	Lys
1				5					10					15	
Arg	Val	Arg	Glu	Leu	Glu	Gln	Glu	Val	Gln	Arg	Leu	Lys	Lys	Glu	Gln
			20					25					30		
Ala	Lys	Asn	Lys	Glu	Asp	Ser	Asn	Ile	Arg	Glu	Asn	Ser	Ser	Gly	Ala
		35					40				45				
Gly	Lys	Thr	Lys	Arg	Ala	Phe	Asp	Phe	Ser	Ala	His	Gly	Arg	Arg	His
	50					55					60				
Val	Ala	Leu	Arg	Ile	Ala	Tyr	Met	Gly	Trp	Gly	Tyr	Gln	Gly	Phe	Ala
65					70				75					80	
Ser	Gln	Glu	Asn	Thr	Asn	Asn	Thr	Ile	Glu	Glu	Lys	Leu	Phe	Glu	Ala
				85					90					95	
Leu	Thr	Lys	Thr	Arg	Leu	Val	Glu	Ser	Arg	Gln	Thr	Ser	Asn	Tyr	His
			100					105					110		
Arg	Cys	Gly	Arg	Thr	Asp	Lys	Gly	Val	Ser	Ala	Phe	Gly	Gln	Val	Ile
		115					120					125			
Ser	Leu	Asp	Leu	Arg	Ser	Gln	Phe	Pro	Arg	Gly	Arg	Asp	Ser	Glu	Asp
		130				135					140				

Phe Asn Val Lys Glu Glu Ala Asn Ala Ala Glu Glu Ile Arg Tyr
 145 150 155 160
 Thr His Ile Leu Asn Arg Val Leu Pro Pro Asp Ile Arg Ile Leu Ala
 165 170 175
 Trp Ala Pro Val Glu Pro Ser Phe Ser Ala Arg Phe Ser Cys Leu Glu
 180 185 190
 Arg Thr Tyr Arg Tyr Phe Phe Pro Arg Ala Asp Leu Asp Ile Val Thr
 195 200 205
 Met Asp Tyr Ala Ala Gln Lys Tyr Val Gly Thr His Asp Phe Arg Asn
 210 215 220
 Leu Cys Lys Met Asp Val Ala Asn Gly Val Ile Asn Phe Gln Arg Thr
 225 230 235 240
 Ile Leu Ser Ala Gln Val Gln Leu Val Gly Gln Ser Pro Gly Glu Gly
 245 250 255
 Arg Trp Gln Glu Pro Phe Gln Leu Cys Gln Phe Glu Val Thr Gly Gln
 260 265 270
 Ala Phe Leu Tyr His Gln Val Arg Cys Met Met Ala Ile Leu Phe Leu
 275 280 285
 Ile Gly Gln Gly Met Glu Lys Pro Glu Ile Ile Asp Glu Leu Leu Asn
 290 295 300
 Ile Glu Lys Asn Pro Gln Lys Pro Gln Tyr Ser Met Ala Val Glu Phe
 305 310 315 320
 Pro Leu Val Leu Tyr Asp Cys Lys Phe Glu Asn Val Lys Trp Ile Tyr
 325 330 335
 Asp Gln Glu Ala Gln Glu Phe Asn Ile Thr His Leu Gln Gln Leu Trp
 340 345 350
 Ala Asn His Ala Val Lys Thr His Met Leu Tyr Ser Met Leu Gln Gly
 355 360 365
 Leu Asp Thr Val Pro Val Pro Cys Gly Ile Gly Pro Lys Met Asp Gly
 370 375 380
 Met Thr Glu Trp Gly Asn Val Lys Pro Ser Val Ile Lys Gln Thr Ser
 385 390 395 400
 Ala Phe Val Glu Gly Val Lys Met Arg Thr Tyr Lys Pro Leu Met Asp
 405 410 415
 Arg Pro Lys Cys Gln Gly Leu Glu Ser Arg Ile Gln His Phe Val Arg
 420 425 430
 Arg Gly Arg Ile Glu His Pro His Leu Phe His Glu Glu Glu Thr Lys
 435 440 445
 Ala Lys Arg Asp Cys Asn Asp Thr Leu Glu Glu Asp Asn Thr Asn Leu
 450 455 460
 Glu Thr Pro Thr Lys Arg Val Cys Val Asp Thr Glu Ile Lys Ser Ile
 465 470 475 480
 Ile *
 481

<210> 1136
 <211> 425
 <212> PRT
 <213> Homo sapiens

<400> 1136
 Met Asn Ala Met Leu Glu Thr Pro Glu Leu Pro Ala Val Phe Asp Gly
 1 5 10 15
 Val Lys Leu Ala Ala Val Ala Ala Val Leu Tyr Val Ile Val Arg Cys
 20 25 30
 Leu Asn Leu Lys Ser Pro Thr Ala Pro Pro Asp Leu Tyr Phe Gln Asp
 35 40 45
 Ser Gly Leu Ser Arg Phe Leu Leu Lys Ser Cys Pro Leu Leu Thr Lys
 50 55 60
 Glu Tyr Ile Pro Pro Leu Ile Trp Gly Lys Ser Gly His Ile Gln Thr
 65 70 75 80

Ala Leu Tyr Gly Lys Met Gly Arg Val Arg Ser Pro His Pro Tyr Gly
 85 90 95
 His Arg Lys Phe Ile Thr Met Ser Asp Gly Ala Thr Ser Thr Phe Asp
 100 105 110
 Leu Phe Glu Pro Leu Ala Glu His Cys Val Gly Asp Asp Ile Thr Met
 115 120 125
 Val Ile Cys Pro Gly Ile Ala Asn His Ser Glu Lys Gln Tyr Ile Arg
 130 135 140
 Thr Phe Val Asp Tyr Ala Gln Lys Asn Gly Tyr Arg Cys Ala Val Leu
 145 150 155 160
 Asn His Leu Gly Ala Leu Pro Asn Ile Glu Leu Thr Ser Pro Arg Met
 165 170 175
 Phe Thr Tyr Gly Cys Thr Trp Glu Phe Gly Ala Met Val Asn Tyr Ile
 180 185 190
 Lys Lys Thr Tyr Pro Leu Thr Gln Leu Val Val Val Gly Phe Ser Leu
 195 200 205
 Gly Gly Asn Ile Val Cys Lys Tyr Leu Gly Glu Thr Gln Ala Asn Gln
 210 215 220
 Glu Lys Val Leu Cys Cys Val Ser Val Cys Gln Gly Tyr Ser Ala Leu
 225 230 235 240
 Arg Ala Gln Glu Thr Phe Met Gln Trp Asp Gln Cys Arg Arg Phe Tyr
 245 250 255
 Asn Phe Leu Met Ala Asp Asn Met Lys Lys Ile Ile Leu Ser His Arg
 260 265 270
 Gln Ala Leu Phe Gly Asp His Val Lys Lys Pro Gln Ser Leu Glu Asp
 275 280 285
 Thr Asp Leu Ser Arg Leu Tyr Thr Ala Thr Ser Leu Met Gln Ile Asp
 290 295 300
 Asp Asn Val Met Arg Lys Phe His Gly Tyr Asn Ser Leu Lys Glu Tyr
 305 310 315 320
 Tyr Glu Glu Glu Ser Cys Met Arg Tyr Leu His Arg Ile Tyr Val Pro
 325 330 335
 Leu Met Leu Val Asn Ala Ala Asp Asp Pro Leu Val His Glu Ser Leu
 340 345 350
 Leu Thr Ile Pro Lys Ser Leu Ser Glu Lys Arg Glu Asn Val Met Phe
 355 360 365
 Val Leu Pro Leu His Gly Gly His Leu Gly Phe Phe Glu Gly Ser Val
 370 375 380
 Leu Phe Pro Glu Pro Leu Thr Trp Met Asp Lys Leu Val Val Glu Tyr
 385 390 395 400
 Ala Asn Ala Ile Cys Gln Trp Glu Arg Asn Lys Leu Gln Cys Ser Asp
 405 410 415
 Thr Glu Gln Val Glu Ala Asp Leu Glu
 420 425

<210> 1137

<211> 1205

<212> PRT

<213> Homo sapiens

<400> 1137

Met Gly Leu Leu Leu Met Ile Leu Ala Ser Ala Val Leu Gly Ser Phe
 1 5 10 15
 Leu Thr Leu Leu Ala Gln Phe Phe Leu Leu Tyr Arg Arg Gln Pro Glu
 20 25 30
 Pro Pro Ala Asp Glu Ala Ala Arg Ala Gly Glu Gly Phe Arg Tyr Ile
 35 40 45
 Lys Pro Val Pro Gly Leu Leu Arg Glu Tyr Leu Tyr Gly Gly Gly
 50 55 60
 Arg Asp Glu Glu Pro Ser Gly Ala Ala Pro Glu Gly Gly Ala Thr Pro
 65 70 75 80

Thr	Ala	Ala	Pro	Glu	Thr	Pro	Ala	Pro	Pro	Thr	Arg	Glu	Thr	Cys	Tyr
				85					90					95	
Phe	Leu	Asn	Ala	Thr	Ile	Leu	Phe	Leu	Phe	Arg	Glu	Leu	Arg	Asp	Thr
			100					105					110		
Ala	Leu	Thr	Arg	Arg	Trp	Val	Thr	Lys	Lys	Ile	Lys	Val	Glu	Phe	Glu
		115					120					125			
Glu	Leu	Leu	Gln	Thr	Lys	Thr	Ala	Gly	Arg	Leu	Leu	Glu	Gly	Leu	Ser
	130					135					140				
Leu	Arg	Asp	Val	Phe	Leu	Gly	Glu	Thr	Val	Pro	Phe	Ile	Lys	Thr	Ile
145					150				155						160
Arg	Leu	Val	Arg	Pro	Val	Val	Pro	Ser	Ala	Thr	Gly	Glu	Pro	Asp	Gly
				165					170					175	
Pro	Glu	Gly	Glu	Ala	Leu	Pro	Ala	Ala	Cys	Pro	Glu	Glu	Leu	Ala	Phe
			180					185					190		
Glu	Ala	Glu	Val	Glu	Tyr	Asn	Gly	Gly	Phe	His	Leu	Ala	Ile	Asp	Val
	195						200					205			
Asp	Leu	Val	Phe	Gly	Lys	Ser	Ala	Tyr	Leu	Phe	Val	Lys	Leu	Ser	Arg
	210					215					220				
Val	Val	Gly	Arg	Leu	Arg	Leu	Val	Phe	Thr	Arg	Val	Pro	Phe	Thr	His
225					230					235					240
Trp	Phe	Phe	Ser	Phe	Val	Glu	Asp	Pro	Leu	Ile	Asp	Phe	Glu	Val	Arg
			245						250					255	
Ser	Gln	Phe	Glu	Gly	Arg	Pro	Met	Pro	Gln	Leu	Thr	Ser	Ile	Ile	Val
			260					265					270		
Asn	Gln	Leu	Lys	Lys	Ile	Ile	Lys	Arg	Lys	His	Thr	Leu	Pro	Asn	Tyr
	275						280					285			
Lys	Ile	Arg	Phe	Lys	Pro	Phe	Phe	Pro	Tyr	Gln	Thr	Leu	Gln	Gly	Phe
	290					295					300				
Glu	Glu	Asp	Glu	Glu	His	Ile	His	Ile	Gln	Gln	Trp	Ala	Leu	Thr	Glu
305					310					315					320
Gly	Arg	Leu	Lys	Val	Thr	Leu	Leu	Glu	Cys	Ser	Arg	Leu	Leu	Ile	Phe
				325					330					335	
Gly	Ser	Tyr	Asp	Arg	Glu	Ala	Asn	Val	His	Cys	Thr	Leu	Glu	Leu	Ser
			340					345					350		
Ser	Ser	Val	Trp	Glu	Glu	Lys	Gln	Arg	Ser	Ser	Ile	Lys	Thr	Gly	Thr
		355					360					365			
Ile	Ser	Leu	Thr	Ala	Val	Phe	Met	Gly	Trp	His	Arg	Val	Ser	Glu	Ala
	370					375					380				
Phe	Pro	Gly	Leu	Trp	Tyr	Lys	Leu	Leu	Val	Asp	Leu	Pro	Phe	Trp	Gly
385					390					395					400
Leu	Glu	Asp	Gly	Gly	Pro	Leu	Leu	Thr	Ala	Pro	Leu	Gly	Ser	Ala	Leu
			405						410					415	
Val	Glu	Leu	Ile	Lys	Gly	Asn	Leu	Gln	Ser	Val	Gly	Leu	Thr	Leu	Arg
			420					425					430		
Leu	Val	Gln	Ser	Thr	Asp	Gly	Tyr	Ala	Gly	His	Val	Ile	Ile	Glu	Thr
		435					440					445			
Val	Ala	Pro	Asn	Ser	Pro	Ala	Ala	Ile	Ala	Asp	Leu	Gln	Arg	Gly	Asp
	450					455					460				
Arg	Leu	Ile	Ala	Ile	Gly	Gly	Val	Lys	Ile	Thr	Ser	Thr	Leu	Gln	Val
465					470					475					480
Leu	Lys	Leu	Ile	Lys	Gln	Ala	Gly	Asp	Arg	Val	Leu	Val	Tyr	Tyr	Glu
				485					490					495	
Arg	Pro	Val	Gly	Gln	Ser	Asn	Gln	Gly	Ala	Val	Leu	Gln	Asp	Asn	Phe
			500					505					510		
Gly	Gln	Leu	Glu	Glu	Asn	Phe	Leu	Ser	Ser	Ser	Cys	Gln	Ser	Gly	Tyr
	515						520					525			
Glu	Glu	Glu	Ala	Ala	Gly	Leu	Thr	Val	Asp	Thr	Glu	Ser	Arg	Glu	Leu
	530					535					540				
Asp	Ser	Glu	Phe	Glu	Asp	Leu	Ala	Ser	Asp	Val	Arg	Ala	Gln	Asn	Glu
545					550					555					560
Phe	Lys	Asp	Glu	Ala	Gln	Ser	Leu	Ser	His	Ser	Pro	Lys	Arg	Val	Pro
				565					570					575	
Thr	Thr	Leu	Ser	Ile	Lys	Pro	Leu	Gly	Ala	Ile	Ser	Pro	Val	Leu	Asn
			580					585					590		

Arg	Lys	Leu	Ala	Val	Gly	Ser	His	Pro	Leu	Pro	Pro	Lys	Ile	Gln	Ser	595	600	605
Lys	Asp	Gly	Asn	Lys	Pro	Pro	Pro	Leu	Lys	Thr	Ser	Glu	Ile	Thr	Asp	610	615	620
Pro	Ala	Gln	Val	Ser	Lys	Pro	Thr	Gln	Gly	Ser	Ala	Phe	Lys	Pro	Pro	625	630	635
Val	Pro	Pro	Arg	Pro	Gln	Ala	Lys	Val	Pro	Leu	Pro	Ser	Ala	Asp	Ala	645	650	655
Pro	Asn	Gln	Ala	Glu	Pro	Asp	Val	Leu	Val	Glu	Lys	Pro	Glu	Lys	Val	660	665	670
Val	Pro	Pro	Pro	Leu	Val	Asp	Lys	Ser	Ala	Glu	Lys	Gln	Ala	Lys	Asn	675	680	685
Val	Asp	Ala	Ile	Asp	Asp	Ala	Ala	Ala	Pro	Lys	Gln	Phe	Leu	Ala	Lys	690	695	700
Gln	Glu	Val	Ala	Lys	Asp	Val	Thr	Ser	Glu	Thr	Ser	Cys	Pro	Thr	Lys	705	710	715
Asp	Ser	Ser	Asp	Asp	Arg	Gln	Thr	Trp	Glu	Ser	Ser	Glu	Ile	Leu	Tyr	725	730	735
Arg	Asn	Lys	Leu	Gly	Lys	Trp	Thr	Arg	Thr	Arg	Ala	Ser	Cys	Leu	Phe	740	745	750
Asp	Ile	Glu	Ala	Cys	His	Arg	Tyr	Leu	Asn	Ile	Ala	Leu	Trp	Cys	Arg	755	760	765
Asp	Pro	Phe	Lys	Leu	Gly	Gly	Leu	Ile	Cys	Leu	Gly	His	Val	Ser	Leu	770	775	780
Lys	Leu	Glu	Asp	Val	Ala	Leu	Gly	Cys	Leu	Ala	Thr	Ser	Asn	Thr	Glu	785	790	795
Tyr	Leu	Ser	Lys	Leu	Arg	Leu	Glu	Ala	Pro	Ser	Pro	Lys	Ala	Ile	Val	805	810	815
Thr	Arg	Thr	Ala	Leu	Arg	Asn	Leu	Ser	Met	Gln	Lys	Gly	Phe	Asn	Asp	820	825	830
Lys	Phe	Cys	Tyr	Gly	Asp	Ile	Thr	Ile	His	Phe	Lys	Tyr	Leu	Lys	Glu	835	840	845
Gly	Glu	Ser	Asp	His	His	Val	Val	Thr	Asn	Val	Glu	Lys	Glu	Lys	Glu	850	855	860
Pro	His	Leu	Val	Glu	Glu	Val	Ser	Val	Leu	Pro	Lys	Glu	Glu	Gln	Phe	865	870	875
Val	Gly	Gln	Met	Gly	Leu	Thr	Glu	Asn	Lys	His	Ser	Phe	Gln	Asp	Thr	885	890	895
Gln	Phe	Gln	Asn	Pro	Thr	Trp	Cys	Asp	Tyr	Cys	Lys	Lys	Lys	Val	Trp	900	905	910
Thr	Lys	Ala	Ala	Ser	Gln	Cys	Met	Phe	Cys	Ala	Tyr	Val	Cys	His	Lys	915	920	925
Lys	Cys	Gln	Glu	Lys	Cys	Leu	Ala	Glu	Thr	Ser	Val	Cys	Gly	Ala	Thr	930	935	940
Asp	Arg	Arg	Ile	Asp	Arg	Thr	Leu	Lys	Asn	Leu	Arg	Leu	Glu	Gly	Gln	945	950	955
Glu	Thr	Leu	Leu	Gly	Leu	Pro	Pro	Arg	Val	Asp	Ala	Glu	Ala	Ser	Lys	965	970	975
Ser	Val	Asn	Lys	Thr	Thr	Gly	Leu	Thr	Arg	His	Ile	Ile	Asn	Thr	Ser	980	985	990
Ser	Arg	Leu	Leu	Asn	Leu	Arg	Gln	Val	Ser	Lys	Thr	Arg	Leu	Ser	Glu	995	1000	1005
Pro	Gly	Thr	Asp	Leu	Val	Glu	Pro	Ser	Pro	Lys	His	Thr	Pro	Asn	Thr	1010	1015	1020
Ser	Asp	Asn	Glu	Gly	Ser	Asp	Thr	Glu	Val	Cys	Gly	Pro	Asn	Ser	Pro	1025	1030	1035
Ser	Lys	Arg	Gly	Asn	Ser	Thr	Gly	Ile	Lys	Leu	Val	Arg	Lys	Glu	Gly	1045	1050	1055
Gly	Leu	Asp	Asp	Ser	Val	Phe	Ile	Ala	Val	Lys	Glu	Ile	Gly	Arg	Asp	1060	1065	1070
Leu	Tyr	Arg	Gly	Leu	Pro	Thr	Glu	Glu	Arg	Ile	Gln	Lys	Leu	Glu	Phe	1075	1080	1085
Met	Leu	Asp	Lys	Leu	Gln	Asn	Glu	Ile	Asp	Gln	Glu	Leu	Glu	His	Asn	1090	1095	1100

Asn Ser Leu Val Arg Glu Glu Lys Glu Thr Thr Asp Thr Arg Lys Lys
 1105 1110 1115 1120
 Ser Leu Leu Ser Ala Ala Leu Ala Lys Ser Gly Glu Arg Leu Gln Ala
 1125 1130 1135
 Leu Thr Leu Leu Met Ile His Tyr Arg Ala Gly Ile Glu Asp Ile Glu
 1140 1145 1150
 Thr Leu Glu Ser Leu Ser Leu Asp Gln His Ser Lys Lys Ile Ser Lys
 1155 1160 1165
 Tyr Thr Asp Asp Thr Glu Glu Asp Leu Asp Asn Glu Ile Ser Gln Leu
 1170 1175 1180
 Ile Asp Ser Gln Pro Phe Ser Ser Ile Ser Asp Asp Leu Phe Gly Pro
 1185 1190 1195 1200
 Ser Glu Ser Val *
 1204

<210> 1138
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 1138
 Met Ala Ala Ala Gly Ala Gly Arg Leu Arg Arg Val Ala Ser Ala Leu
 1 5 10 15
 Leu Leu Arg Ser Pro Arg Leu Pro Ala Arg Glu Leu Ser Ala
 20 25 30

<210> 1139
 <211> 340
 <212> PRT
 <213> Homo sapiens

<400> 1139
 Met Arg Lys Glu Leu Gln Leu Ser Leu Ser Val Thr Leu Leu Leu Val
 1 5 10 15
 Cys Gly Phe Leu Tyr Gln Phe Thr Leu Lys Ser Ser Cys Leu Phe Cys
 20 25 30
 Leu Pro Ser Phe Lys Ser His Gln Gly Leu Glu Ala Leu Leu Ser His
 35 40 45
 Arg Arg Gly Ile Val Phe Leu Glu Thr Ser Glu Arg Met Glu Pro Pro
 50 55 60
 His Leu Val Ser Cys Ser Val Glu Ser Ala Ala Lys Ile Tyr Pro Glu
 65 70 75 80
 Trp Pro Val Val Phe Phe Met Lys Gly Leu Thr Asp Ser Thr Pro Met
 85 90 95
 Pro Ser Asn Ser Thr Tyr Pro Ala Phe Ser Phe Leu Ser Ala Ile Asp
 100 105 110
 Asn Val Phe Leu Phe Pro Leu Asp Met Lys Arg Leu Leu Glu Asp Thr
 115 120 125
 Pro Leu Phe Ser Trp Tyr Asn Gln Ile Asn Ala Ser Ala Glu Arg Asn
 130 135 140
 Trp Leu His Ile Ser Ser Asp Ala Ser Arg Leu Ala Ile Ile Trp Lys
 145 150 155 160
 Tyr Gly Gly Ile Tyr Met Asp Thr Asp Val Ile Ser Ile Arg Pro Ile
 165 170 175
 Pro Glu Glu Asn Phe Leu Ala Ala Gln Ala Ser Arg Tyr Ser Ser Asn
 180 185 190
 Gly Ile Phe Gly Phe Leu Pro His His Pro Phe Leu Trp Glu Cys Met
 195 200 205

Glu	Asn	Phe	Val	Glu	His	Tyr	Asn	Ser	Ala	Ile	Trp	Gly	Asn	Gln	Gly
210						215					220				
Pro	Glu	Leu	Met	Thr	Arg	Met	Leu	Arg	Val	Trp	Cys	Lys	Leu	Glu	Asp
225					230					235					240
Phe	Gln	Glu	Val	Ser	Asp	Leu	Arg	Cys	Leu	Asn	Ile	Ser	Phe	Leu	His
				245					250					255	
Pro	Gln	Arg	Phe	Tyr	Pro	Ile	Ser	Tyr	Arg	Glu	Trp	Arg	Arg	Tyr	Tyr
			260					265					270		
Glu	Val	Trp	Asp	Thr	Glu	Pro	Ser	Phe	Asn	Val	Ser	Tyr	Ala	Leu	His
	275						280					285			
Leu	Trp	Asn	His	Met	Asn	Gln	Glu	Gly	Arg	Ala	Val	Ile	Arg	Gly	Ser
290					295						300				
Asn	Thr	Leu	Val	Glu	Asn	Leu	Tyr	Arg	Lys	His	Cys	Pro	Arg	Thr	Tyr
305					310					315					320
Arg	Asp	Leu	Ile	Lys	Gly	Pro	Glu	Gly	Ser	Val	Thr	Gly	Glu	Leu	Gly
				325					330					335	
Pro	Gly	Asn	Lys												
			340												

<210> 1140
 <211> 248
 <212> PRT
 <213> Homo sapiens

<400> 1140

Met	Ala	Ala	Gly	Met	Tyr	Leu	Glu	His	Tyr	Leu	Asp	Ser	Ile	Glu	Asn
1				5					10					15	
Leu	Pro	Phe	Glu	Leu	Gln	Arg	Asn	Phe	Gln	Leu	Met	Arg	Asp	Leu	Asp
			20					25					30		
Gln	Arg	Thr	Glu	Asp	Leu	Lys	Ala	Glu	Ile	Asp	Lys	Leu	Ala	Thr	Glu
		35					40					45			
Tyr	Met	Ser	Ser	Ala	Arg	Ser	Leu	Ser	Ser	Glu	Glu	Lys	Leu	Ala	Leu
	50					55				60					
Leu	Lys	Gln	Ile	Gln	Glu	Ala	Tyr	Gly	Lys	Cys	Lys	Glu	Phe	Gly	Asp
65					70					75					80
Asp	Lys	Val	Gln	Leu	Ala	Met	Gln	Thr	Tyr	Glu	Met	Val	Asp	Lys	His
				85					90					95	
Ile	Arg	Arg	Leu	Asp	Thr	Asp	Leu	Ala	Arg	Phe	Glu	Ala	Asp	Leu	Lys
			100					105					110		
Glu	Lys	Gln	Ile	Glu	Ser	Ser	Asp	Tyr	Asp	Ser	Ser	Ser	Ser	Lys	Gly
		115					120					125			
Lys	Lys	Ser	Arg	Thr	Gln	Lys	Glu	Lys	Lys	Ala	Ala	Arg	Ala	Arg	Ser
	130					135					140				
Lys	Gly	Lys	Asn	Ser	Asp	Glu	Glu	Ala	Pro	Lys	Thr	Ala	Gln	Lys	Lys
145					150					155					160
Leu	Lys	Leu	Val	Arg	Thr	Ser	Pro	Glu	Tyr	Gly	Met	Pro	Ser	Val	Thr
				165					170					175	
Phe	Gly	Ser	Val	His	Pro	Ser	Asp	Val	Leu	Asp	Met	Pro	Val	Asp	Pro
			180					185					190		
Asn	Glu	Pro	Thr	Tyr	Cys	Leu	Cys	His	Gln	Val	Ser	Tyr	Gly	Glu	Met
		195					200					205			
Ile	Gly	Cys	Asp	Asn	Pro	Asp	Cys	Ser	Ile	Glu	Trp	Phe	His	Phe	Ala
	210					215					220				
Cys	Val	Gly	Leu	Thr	Thr	Lys	Pro	Arg	Gly	Lys	Trp	Phe	Cys	Pro	Arg
225					230					235					240
Cys	Ser	Gln	Glu	Arg	Lys	Lys	Lys								
				245			248								

<210> 1141

<211> 872

<212> PRT

<213> Homo sapiens

<400> 1141

Met	Val	Ala	Val	Arg	Ala	Ala	Gly	Pro	Arg	Glu	Gly	Ala	Ser	Gln	Asp
1				5					10					15	
Glu	Ala	Gly	Thr	Val	Trp	Ala	Pro	Met	Thr	Gly	Cys	Pro	Cys	Gln	Cys
			20					25					30		
Arg	Pro	Gly	Pro	Ser	Trp	Leu	Leu	Val	Asp	Thr	Leu	Glu	Pro	Glu	Thr
		35					40					45			
Ala	Tyr	Pro	Val	Gln	Arg	Pro	Gly	Pro	Glu	Gln	Ala	Gly	Asn	Gln	Arg
	50					55					60				
Leu	Gln	Met	Lys	Arg	Ala	Gln	Phe	Gly	Pro	His	Asp	Trp	Leu	Ser	Leu
65					70					75					80
Pro	Val	Pro	Pro	Gly	Pro	Ser	Trp	Leu	Leu	Val	Asp	Thr	Leu	Glu	Pro
				85					90					95	
Glu	Thr	Ala	Tyr	Gln	Phe	Ser	Val	Leu	Ala	Gln	Asn	Lys	Leu	Gly	Thr
			100					105					110		
Ser	Ala	Phe	Ser	Glu	Val	Val	Thr	Val	Asn	Thr	Leu	Ala	Phe	Pro	Ile
	115						120					125			
Thr	Thr	Pro	Glu	Pro	Leu	Val	Leu	Val	Thr	Pro	Pro	Arg	Cys	Leu	Ile
	130					135						140			
Ala	Asn	Arg	Thr	Gln	Gln	Gly	Val	Leu	Leu	Ser	Trp	Leu	Pro	Pro	Ala
145					150					155					160
Asn	His	Ser	Phe	Pro	Ile	Asp	Arg	Tyr	Ile	Met	Glu	Phe	Arg	Val	Ala
				165					170					175	
Glu	Arg	Trp	Glu	Leu	Leu	Asp	Asp	Gly	Ile	Pro	Gly	Thr	Glu	Gly	Glu
			180					185					190		
Phe	Phe	Ala	Lys	Asp	Leu	Ser	Gln	Asp	Thr	Trp	Tyr	Glu	Phe	Arg	Val
	195						200					205			
Leu	Ala	Val	Met	Gln	Asp	Leu	Ile	Ser	Glu	Pro	Ser	Asn	Ile	Ala	Gly
	210					215						220			
Val	Ser	Ser	Thr	Asp	Ile	Phe	Pro	Gln	Pro	Asp	Leu	Thr	Glu	Asp	Gly
225					230					235					240
Leu	Ala	Arg	Pro	Val	Leu	Ala	Gly	Ile	Val	Ala	Thr	Ile	Cys	Phe	Leu
				245					250					255	
Ala	Ala	Ala	Ile	Leu	Phe	Ser	Thr	Leu	Ala	Ala	Cys	Phe	Val	Asn	Lys
			260						265					270	
Gln	Arg	Lys	Arg	Lys	Leu	Lys	Arg	Lys	Lys	Asp	Pro	Pro	Leu	Ser	Ile
	275						280						285		
Thr	His	Cys	Arg	Lys	Ser	Leu	Glu	Ser	Pro	Leu	Ser	Ser	Gly	Lys	Val
	290					295						300			
Ser	Pro	Glu	Ser	Ile	Arg	Thr	Leu	Arg	Ala	Pro	Ser	Glu	Ser	Ser	Asp
305					310					315					320
Asp	Gln	Gly	Gln	Pro	Ala	Ala	Lys	Arg	Met	Leu	Ser	Pro	Thr	Arg	Glu
				325					330					335	
Lys	Glu	Leu	Ser	Leu	Tyr	Lys	Lys	Thr	Lys	Arg	Ala	Ile	Ser	Ser	Lys
			340					345					350		
Lys	Tyr	Ser	Val	Ala	Lys	Ala	Glu	Ala	Glu	Ala	Glu	Ala	Thr	Thr	Pro
	355						360						365		
Ile	Glu	Leu	Ile	Ser	Arg	Gly	Pro	Asp	Gly	Arg	Phe	Val	Met	Asp	Pro
	370					375					380				
Ala	Glu	Met	Glu	Pro	Ser	Leu	Lys	Ser	Arg	Arg	Ile	Glu	Gly	Phe	Pro
385					390					395					400
Phe	Ala	Glu	Glu	Thr	Asp	Met	Tyr	Pro	Glu	Phe	Arg	Gln	Ser	Asp	Glu
				405					410					415	
Glu	Asn	Glu	Asp	Pro	Leu	Val	Pro	Thr	Ser	Val	Ala	Ala	Leu	Lys	Ser
			420					425					430		
Gln	Leu	Thr	Pro	Leu	Ser	Ser	Ser	Gln	Glu	Ser	Tyr	Leu	Pro	Pro	Pro
	435						440					445			
Ala	Tyr	Ser	Pro	Arg	Phe	Gln	Pro	Arg	Gly	Leu	Glu	Gly	Pro	Gly	Gly
	450					455					460				

Leu Glu Gly Arg Leu Gln Ala Thr Gly Gln Ala Arg Pro Pro Ala Pro
 465 470 475 480
 Arg Pro Phe His His Gly Gln Tyr Tyr Gly Tyr Leu Ser Ser Ser Ser
 485 490 495
 Pro Gly Glu Val Glu Pro Pro Pro Phe Tyr Val Pro Glu Val Gly Ser
 500 505 510
 Pro Leu Ser Ser Val Met Ser Ser Pro Pro Leu Pro Thr Glu Gly Pro
 515 520 525
 Phe Gly His Pro Thr Ile Pro Glu Glu Asn Gly Glu Asn Ala Ser Asn
 530 535 540
 Ser Thr Leu Pro Leu Thr Gln Thr Pro Thr Gly Gly Arg Ser Pro Glu
 545 550 555 560
 Pro Trp Gly Arg Pro Glu Phe Pro Phe Gly Gly Leu Glu Thr Pro Ala
 565 570 575
 Met Met Phe Pro His Gln Leu Pro Pro Cys Asp Val Pro Glu Ser Leu
 580 585 590
 Gln Pro Lys Ala Gly Leu Pro Arg Gly Leu Pro Pro Thr Ser Leu Gln
 595 600 605
 Val Pro Ala Ala Tyr Pro Gly Ile Leu Ser Leu Glu Ala Pro Lys Gly
 610 615 620
 Trp Ala Gly Lys Ser Pro Gly Arg Gly Pro Val Pro Ala Pro Pro Ala
 625 630 635 640
 Ala Lys Trp Gln Asp Arg Pro Met Gln Pro Leu Val Ser Gln Gly Gln
 645 650 655
 Leu Arg His Thr Ser Gln Gly Met Gly Ile Pro Val Leu Pro Tyr Pro
 660 665 670
 Glu Pro Ala Glu Pro Gly Ala His Gly Gly Pro Ser Thr Phe Gly Leu
 675 680 685
 Asp Thr Arg Trp Tyr Glu Pro Gln Pro Arg Pro Arg Pro Ser Pro Arg
 690 695 700
 Gln Ala Arg Arg Ala Glu Pro Ser Leu His Gln Val Val Leu Gln Pro
 705 710 715 720
 Ser Arg Leu Ser Pro Leu Thr Gln Ser Pro Leu Ser Ser Arg Thr Gly
 725 730 735
 Ser Pro Glu Leu Ala Ala Arg Ala Arg Pro Arg Pro Gly Leu Leu Gln
 740 745 750
 Gln Ala Glu Met Ser Glu Ile Thr Leu Gln Pro Pro Ala Ala Val Ser
 755 760 765
 Phe Ser Arg Lys Ser Thr Pro Ser Thr Gly Ser Pro Ser Gln Ser Ser
 770 775 780
 Arg Ser Gly Ser Pro Ser Tyr Arg Pro Ala Met Gly Phe Thr Thr Leu
 785 790 795 800
 Ala Thr Gly Tyr Pro Ser Pro Pro Pro Gly Pro Ala Pro Ala Gly Pro
 805 810 815
 Gly Asp Ser Leu Asp Val Phe Gly Gln Thr Pro Ser Pro Arg Arg Thr
 820 825 830
 Gly Glu Glu Leu Leu Arg Pro Glu Thr Pro Pro Pro Thr Leu Pro Thr
 835 840 845
 Ser Gly Lys Leu Arg Arg Asp Arg Pro Ala Pro Ala Thr Ser Pro Pro
 850 855 860
 Glu Arg Ala Leu Ser Lys Leu *
 865 870 871

<210> 1142

<211> 273

<212> PRT

<213> Homo sapiens

<400> 1142

Met Ser Leu Thr Asn Thr Lys Thr Gly Phe Ser Val Lys Asp Ile Leu
 1 5 10 15

Asp Leu Pro Asp Thr Asn Asp Glu Glu Gly Ser Val Ala Glu Gly Pro
 20 25 30
 Glu Glu Glu Asn Glu Gly Pro Glu Pro Ala Lys Arg Ala Gly Pro Leu
 35 40 45
 Gly Gln Gly Ala Leu Asp Ala Val Gln Ser Leu Pro Leu Lys Asn Pro
 50 55 60
 Phe Tyr Asp Ser Ser Asp Asn Pro Tyr Thr Arg Trp Leu Ala Ser Thr
 65 70 75 80
 Glu Gly Leu Gln Tyr Ser Leu His Gly Leu Ala Ala Gly Ala Pro Pro
 85 90 95
 Gln Asp Ser Ser Ser Lys Ser Pro Glu Pro Ser Ala Asp Glu Ser Pro
 100 105 110
 Asp Asn Asp Lys Glu Thr Pro Gly Gly Gly Gly Asp Ala Gly Lys Lys
 115 120 125
 Arg Lys Arg Arg Val Leu Phe Ser Lys Ala Gln Thr Tyr Glu Leu Glu
 130 135 140
 Arg Arg Phe Arg Gln Gln Arg Tyr Leu Ser Ala Pro Glu Arg Glu His
 145 150 155 160
 Leu Ala Ser Leu Ile Arg Leu Thr Pro Thr Gln Val Lys Ile Trp Phe
 165 170 175
 Gln Asn His Arg Tyr Lys Met Lys Arg Ala Arg Ala Glu Lys Gly Met
 180 185 190
 Glu Val Thr Pro Leu Pro Ser Pro Arg Arg Val Ala Val Pro Val Leu
 195 200 205
 Val Arg Asp Gly Lys Pro Cys His Ala Leu Lys Ala Gln Asp Leu Ala
 210 215 220
 Ala Ala Thr Phe Gln Ala Gly Ile Pro Phe Ser Ala Tyr Ser Ala Gln
 225 230 235 240
 Ser Leu Gln His Met Gln Tyr Asn Ala Gln Tyr Ser Ser Ala Ser Thr
 245 250 255
 Pro Gln Tyr Pro Thr Ala His Pro Leu Val Gln Ala Gln Gln Trp Thr
 260 265 270
 Trp
 273

<210> 1143
 <211> 59
 <212> PRT
 <213> Homo sapiens

<400> 1143
 Met Thr Arg Gly Asn Gln Arg Glu Leu Ala Arg Gln Lys Asn Met Lys
 1 5 10 15
 Lys Gln Ser Asp Ser Val Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser
 20 25 30
 Ala Ala Ala Arg Lys Gln Arg Asp Ser Glu Ile Met Gln Gln Lys Gln
 35 40 45
 Lys Lys Ala Asn Glu Lys Lys Glu Glu Pro Lys
 50 55 59

<210> 1144
 <211> 844
 <212> PRT
 <213> Homo sapiens

<400> 1144
 Met Ser Phe Pro Pro His Leu Asn Arg Pro Pro Met Gly Ile Pro Ala
 1 5 10 15

Leu	Pro	Pro	Gly	Ile	Pro	Pro	Pro	Gln	Phe	Pro	Gly	Phe	Pro	Pro	Pro
			20					25					30		
Val	Pro	Pro	Gly	Thr	Pro	Met	Ile	Pro	Val	Pro	Met	Ser	Ile	Met	Ala
		35					40					45			
Pro	Ala	Pro	Thr	Val	Leu	Val	Pro	Thr	Val	Ser	Met	Val	Gly	Lys	His
	50					55				60					
Leu	Gly	Ala	Arg	Lys	Asp	His	Pro	Gly	Leu	Lys	Ala	Lys	Glu	Asn	Asp
	65				70					75					80
Glu	Asn	Cys	Gly	Pro	Thr	Thr	Thr	Val	Phe	Val	Gly	Asn	Ile	Ser	Glu
			85					90					95		
Lys	Ala	Ser	Asp	Met	Leu	Ile	Arg	Gln	Leu	Leu	Ala	Lys	Cys	Gly	Leu
			100					105					110		
Val	Leu	Ser	Trp	Lys	Arg	Val	Gln	Gly	Ala	Ser	Gly	Lys	Leu	Gln	Ala
		115					120					125			
Phe	Gly	Phe	Cys	Glu	Tyr	Lys	Glu	Pro	Glu	Ser	Thr	Leu	Arg	Ala	Leu
	130					135					140				
Arg	Leu	Leu	His	Asp	Leu	Gln	Ile	Gly	Glu	Lys	Lys	Leu	Leu	Val	Lys
	145				150					155					160
Val	Asp	Ala	Lys	Thr	Lys	Ala	Gln	Leu	Asp	Glu	Trp	Lys	Ala	Lys	Lys
				165					170					175	
Lys	Ala	Ser	Asn	Gly	Asn	Ala	Arg	Pro	Glu	Thr	Val	Thr	Asn	Asp	Asp
			180					185					190		
Glu	Glu	Ala	Leu	Asp	Glu	Glu	Thr	Lys	Arg	Arg	Asp	Gln	Met	Ile	Lys
		195					200					205			
Gly	Ala	Ile	Glu	Val	Leu	Ile	Arg	Glu	Tyr	Ser	Ser	Glu	Leu	Asn	Ala
	210					215					220				
Pro	Ser	Gln	Glu	Ser	Asp	Ser	His	Pro	Arg	Lys	Lys	Lys	Lys	Glu	Lys
	225				230					235					240
Lys	Glu	Asp	Ile	Phe	Arg	Arg	Phe	Pro	Val	Ala	Pro	Leu	Ile	Pro	Tyr
			245					250						255	
Pro	Leu	Ile	Thr	Lys	Glu	Asp	Ile	Asn	Ala	Ile	Glu	Met	Glu	Glu	Asp
			260					265					270		
Lys	Arg	Asp	Leu	Ile	Ser	Arg	Glu	Ile	Ser	Lys	Phe	Arg	Asp	Thr	His
		275					280					285			
Lys	Lys	Leu	Glu	Glu	Glu	Lys	Gly	Lys	Lys	Glu	Lys	Glu	Arg	Gln	Glu
	290					295				300					
Ile	Glu	Lys	Glu	Arg	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg
	305				310					315					320
Glu	Arg	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
				325					330					335	
Lys	Glu	Lys	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Asp	Arg	Asp	Arg	Asp
			340					345					350		
Arg	Thr	Lys	Glu	Arg	Asp	Arg	Asp	Arg	Asp	Arg	Glu	Arg	Asp	Arg	Asp
		355					360					365			
Arg	Asp	Arg	Glu	Arg	Ser	Ser	Asp	Arg	Asn	Lys	Asp	Arg	Ser	Arg	Ser
	370					375					380				
Arg	Glu	Lys	Ser	Arg	Asp	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
	385				390					395					400
Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
				405					410					415	
Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Lys	Asp	Lys	Lys	Arg	Asp
			420					425					430		
Arg	Glu	Glu	Asp	Glu	Glu	Asp	Ala	Tyr	Glu	Arg	Arg	Lys	Leu	Glu	Arg
		435					440					445			
Lys	Leu	Arg	Glu	Lys	Glu	Ala	Tyr	Gln	Glu	Arg	Leu	Lys	Asn	Trp	
	450					455					460				
Glu	Ile	Arg	Glu	Arg	Lys	Lys	Thr	Arg	Glu	Tyr	Glu	Lys	Glu	Ala	Glu
	465				470					475					480
Arg	Glu	Glu	Glu	Arg	Arg	Arg	Glu	Met	Ala	Lys	Glu	Ala	Lys	Arg	Leu
				485					490					495	
Lys	Glu	Phe	Leu	Glu	Asp	Tyr	Asp	Asp	Arg	Asp	Asp	Asp	Pro	Lys	Tyr
		500						505					510		
Tyr	Arg	Gly	Ser	Ala	Leu	Gln	Lys	Arg	Leu	Arg	Asp	Arg	Glu	Lys	Glu
		515					520						525		

Met	Glu	Ala	Asp	Glu	Arg	Asp	Arg	Lys	Arg	Glu	Lys	Glu	Glu	Leu	Glu
530						535					540				
Glu	Ile	Arg	Gln	Arg	Leu	Leu	Ala	Glu	Gly	His	Pro	Asp	Pro	Asp	Ala
545					550					555					560
Glu	Leu	Gln	Arg	Met	Glu	Gln	Glu	Ala	Glu	Arg	Arg	Arg	Gln	Pro	Gln
				565					570					575	
Ile	Lys	Gln	Glu	Pro	Glu	Ser	Glu	Glu	Glu	Glu	Glu	Glu	Lys	Gln	Glu
			580					585					590		
Lys	Glu	Glu	Lys	Arg	Glu	Glu	Pro	Met	Glu	Glu	Glu	Glu	Glu	Pro	Glu
	595						600					605			
Gln	Lys	Pro	Cys	Leu	Lys	Pro	Thr	Leu	Arg	Pro	Ile	Ser	Ser	Ala	Pro
610						615					620				
Ser	Val	Ser	Ser	Ala	Ser	Gly	Asn	Ala	Thr	Pro	Asn	Thr	Pro	Gly	Asp
625					630					635					640
Glu	Ser	Pro	Cys	Gly	Ile	Ile	Ile	Pro	His	Glu	Asn	Ser	Pro	Asp	Gln
			645						650					655	
Gln	Gln	Pro	Glu	Glu	His	Arg	Pro	Lys	Ile	Gly	Leu	Ser	Leu	Lys	Leu
			660					665					670		
Gly	Ala	Ser	Asn	Ser	Pro	Gly	Gln	Pro	Asn	Ser	Val	Lys	Arg	Lys	Lys
	675						680					685			
Leu	Pro	Val	Asp	Ser	Val	Phe	Asn	Lys	Phe	Glu	Asp	Glu	Asp	Ser	Asp
690						695				700					
Asp	Val	Pro	Arg	Lys	Arg	Lys	Leu	Val	Pro	Leu	Asp	Tyr	Gly	Glu	Asp
705					710					715					720
Asp	Lys	Asn	Ala	Thr	Lys	Gly	Thr	Val	Asn	Thr	Glu	Glu	Lys	Arg	Lys
				725					730					735	
His	Ile	Lys	Ser	Leu	Ile	Glu	Lys	Ile	Pro	Thr	Ala	Lys	Pro	Glu	Leu
			740					745					750		
Phe	Ala	Tyr	Pro	Leu	Asp	Trp	Ser	Ile	Val	Asp	Ser	Ile	Leu	Met	Glu
	755					760						765			
Arg	Arg	Ile	Arg	Pro	Trp	Ile	Asn	Lys	Lys	Ile	Ile	Glu	Tyr	Ile	Gly
770					775						780				
Glu	Glu	Glu	Ala	Thr	Leu	Val	Asp	Phe	Val	Cys	Ser	Lys	Val	Met	Ala
785					790					795					800
His	Ser	Ser	Pro	Gln	Ser	Ile	Leu	Asp	Asp	Val	Ala	Met	Val	Leu	Asp
			805					810						815	
Glu	Glu	Ala	Glu	Val	Phe	Ile	Val	Lys	Met	Trp	Arg	Leu	Leu	Ile	Tyr
			820					825					830		
Glu	Thr	Glu	Ala	Lys	Lys	Ile	Gly	Leu	Val	Lys	*				
	835						840			843					

<210> 1145
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 1145															
Met	Thr	Thr	Pro	Asn	Lys	Thr	Pro	Pro	Gly	Ala	Asp	Pro	Lys	Gln	Leu
1				5					10					15	
Glu	Arg	Thr	Gly	Thr	Val	Arg	Glu	Ile	Gly	Ser	Gln	Ala	Val	Trp	Ser
			20					25					30		
Leu	Ser	Ser	Cys	Lys	Pro	Gly	Phe	Gly	Val	Asp	Gln	Leu	Arg	Asp	Asp
		35				40					45				
Asn	Leu	Glu	Thr	Tyr	Trp	Gln	Ser	Asp	Gly	Ser	Gln	Pro	His	Leu	Val
	50					55					60				
Asn	Ile	Gln	Phe	Arg	Arg	Lys	Thr	Thr	Val	Lys	Thr	Leu	Cys	Ile	Tyr
65					70					75					80
Ala	Asp	Tyr	Lys	Ser	Asp	Glu	Ser	Tyr	Thr	Pro	Ser	Lys	Ile	Ser	Val
			85					90					95		
Arg	Val	Gly	Asn	Asn	Phe	His	Asn	Leu	Gln	Glu	Ile	Arg	Gln	Leu	Glu
			100					105					110		

Leu Val Glu Pro Ser Gly Trp Ile His Val Pro Leu Thr Asp Asn His
 115 120 125
 Lys Lys Pro Thr Arg Thr Phe Met Ile Gln Ile Ala Val Leu Ala Asn
 130 135 140
 His Gln Asn Gly Arg Asp Thr His Met Arg Gln Ile Lys Ile Tyr Thr
 145 150 155 160
 Pro Val Glu Glu Ser Ser Ile Gly Lys Phe Pro Arg Cys Thr Thr Ile
 165 170 175
 Asp Phe Met Met Tyr Arg Ser Ile Arg
 180 185

<210> 1146
 <211> 388
 <212> PRT
 <213> Homo sapiens

<400> 1146
 Met Asn Thr Met Tyr Val Met Met Ala Gln Ile Leu Arg Ser His Leu
 1 5 10 15
 Ile Lys Ala Thr Val Ile Pro Asn Arg Val Lys Met Leu Pro Tyr Phe
 20 25 30
 Gly Ile Ile Arg Asn Arg Met Met Ser Thr His Lys Ser Lys Lys Lys
 35 40 45
 Ile Arg Glu Tyr Tyr Arg Leu Leu Asn Val Glu Glu Gly Cys Ser Ala
 50 55 60
 Asp Glu Val Arg Glu Ser Phe His Lys Leu Ala Lys Gln Tyr His Pro
 65 70 75 80
 Asp Ser Gly Ser Asn Thr Ala Asp Ser Ala Thr Phe Ile Arg Ile Glu
 85 90 95
 Lys Ala Tyr Arg Lys Val Leu Ser His Val Ile Glu Gln Thr Asn Ala
 100 105 110
 Ser Gln Ser Lys Gly Glu Glu Glu Asp Val Glu Lys Phe Lys Tyr
 115 120 125
 Lys Thr Pro Gln His Arg His Tyr Leu Ser Phe Glu Gly Ile Gly Phe
 130 135 140
 Gly Thr Pro Thr Gln Arg Glu Lys His Tyr Arg Gln Phe Arg Ala Asp
 145 150 155 160
 Arg Ala Ala Glu Gln Val Met Glu Tyr Gln Lys Gln Lys Leu Gln Ser
 165 170 175
 Gln Tyr Phe Pro Asp Ser Val Ile Val Lys Asn Ile Arg Gln Ser Lys
 180 185 190
 Gln Gln Lys Ile Thr Gln Ala Ile Glu Arg Leu Val Glu Asp Leu Ile
 195 200 205
 Gln Glu Ser Met Ala Lys Gly Asp Phe Asp Asn Leu Ser Gly Lys Gly
 210 215 220
 Lys Pro Leu Lys Lys Phe Ser Asp Cys Ser Tyr Ile Asp Pro Met Thr
 225 230 235 240
 His Asn Leu Asn Arg Ile Leu Ile Asp Asn Gly Tyr Gln Pro Glu Trp
 245 250 255
 Ile Leu Lys Gln Lys Glu Ile Ser Asp Thr Ile Glu Gln Leu Arg Glu
 260 265 270
 Ala Ile Leu Val Ser Arg Lys Lys Leu Gly Asn Pro Met Thr Pro Thr
 275 280 285
 Glu Lys Lys Gln Trp Asn His Val Cys Glu Gln Phe Gln Glu Asn Ile
 290 295 300
 Arg Lys Leu Asn Lys Arg Ile Asn Asp Phe Asn Leu Ile Val Pro Ile
 305 310 315 320
 Leu Thr Arg Gln Lys Val His Phe Asp Ala Gln Lys Glu Ile Val Arg
 325 330 335
 Ala Gln Lys Ile Tyr Glu Thr Leu Ile Lys Thr Lys Glu Val Thr Asp
 340 345 350

Arg	Asn	Pro	Asn	Asn	Leu	Asp	Gln	Gly	Glu	Gly	Glu	Lys	Thr	Pro	Glu
		355					360					365			
Ile	Lys	Lys	Gly	Phe	Leu	Asn	Trp	Met	Asn	Leu	Trp	Lys	Phe	Ile	Lys
	370					375					380				
Ile	Arg	Ser	Phe												
385			388												

<210> 1147
 <211> 639
 <212> PRT
 <213> Homo sapiens

<400> 1147

Met	Glu	Ile	Ile	Arg	Ser	Asn	Phe	Lys	Ser	Asn	Leu	His	Lys	Val	Tyr
1				5					10					15	
Gln	Ala	Ile	Glu	Glu	Ala	Asp	Phe	Phe	Ala	Ile	Asp	Gly	Glu	Phe	Ser
		20						25					30		
Gly	Ile	Ser	Asp	Gly	Pro	Ser	Val	Ser	Ala	Leu	Thr	Asn	Gly	Phe	Asp
		35					40					45			
Thr	Pro	Glu	Glu	Arg	Tyr	Gln	Lys	Leu	Lys	Lys	His	Ser	Met	Asp	Phe
	50					55					60				
Leu	Leu	Phe	Gln	Phe	Gly	Leu	Cys	Thr	Phe	Lys	Tyr	Asp	Tyr	Thr	Asp
65					70					75					80
Ser	Lys	Tyr	Ile	Thr	Lys	Ser	Phe	Asn	Phe	Tyr	Val	Phe	Pro	Lys	Pro
			85						90					95	
Phe	Asn	Arg	Ser	Ser	Pro	Asp	Val	Lys	Phe	Val	Cys	Gln	Ser	Ser	Ser
		100						105					110		
Ile	Asp	Phe	Leu	Ala	Ser	Gln	Gly	Phe	Asp	Phe	Asn	Lys	Val	Phe	Arg
	115					120						125			
Asn	Gly	Ile	Pro	Tyr	Leu	Asn	Gln	Glu	Glu	Glu	Arg	Gln	Leu	Arg	Glu
	130					135					140				
Gln	Tyr	Asp	Glu	Lys	Arg	Ser	Gln	Ala	Asn	Gly	Ala	Gly	Ala	Leu	Ser
145					150					155					160
Tyr	Val	Ser	Pro	Asn	Thr	Ser	Lys	Cys	Pro	Val	Thr	Ile	Pro	Glu	Asp
				165					170					175	
Gln	Lys	Lys	Phe	Ile	Asp	Gln	Val	Val	Glu	Lys	Ile	Glu	Asp	Leu	Leu
			180					185					190		
Gln	Ser	Glu	Glu	Asn	Lys	Asn	Leu	Asp	Leu	Glu	Pro	Cys	Thr	Gly	Phe
	195						200					205			
Gln	Arg	Lys	Leu	Ile	Tyr	Gln	Thr	Leu	Ser	Trp	Lys	Tyr	Pro	Lys	Gly
	210					215					220				
Ile	His	Val	Glu	Thr	Leu	Glu	Thr	Glu	Lys	Lys	Glu	Arg	Tyr	Ile	Val
225					230						235				240
Ile	Ser	Lys	Val	Asp	Glu	Glu	Glu	Arg	Lys	Arg	Arg	Glu	Gln	Gln	Lys
				245					250					255	
His	Ala	Lys	Glu	Gln	Glu	Glu	Leu	Asn	Asp	Ala	Val	Gly	Phe	Ser	Arg
		260						265					270		
Val	Ile	His	Ala	Ile	Ala	Asn	Ser	Gly	Lys	Leu	Val	Ile	Gly	His	Asn
	275					280						285			
Met	Leu	Leu	Asp	Val	Met	His	Thr	Val	His	Gln	Phe	Tyr	Cys	Pro	Leu
	290					295					300				
Pro	Ala	Asp	Leu	Ser	Glu	Phe	Lys	Glu	Met	Thr	Thr	Cys	Val	Phe	Pro
305					310					315					320
Arg	Leu	Leu	Asp	Thr	Lys	Leu	Met	Ala	Ser	Thr	Gln	Pro	Phe	Lys	Asp
				325					330					335	
Ile	Ile	Asn	Asn	Thr	Ser	Leu	Ala	Glu	Leu	Glu	Lys	Arg	Leu	Lys	Glu
		340						345					350		
Thr	Pro	Phe	Asn	Pro	Pro	Lys	Val	Glu	Ser	Ala	Glu	Gly	Phe	Pro	Ser
	355						360					365			
Tyr	Asp	Thr	Ala	Ser	Glu	Gln	Leu	His	Glu	Ala	Gly	Tyr	Asp	Ala	Tyr
	370					375					380				

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Ile Thr Gly Leu Cys Phe Ile Ser Met Ala Asn Tyr Leu Gly Ser Phe
385          390          395          400
Leu Ser Pro Pro Lys Ile His Val Ser Ala Arg Ser Lys Leu Ile Glu
          405          410          415
Pro Phe Phe Asn Lys Leu Phe Leu Met Arg Val Met Asp Ile Pro Tyr
          420          425          430
Leu Asn Leu Glu Gly Pro Asp Leu Gln Pro Lys Arg Asp His Val Leu
          435          440          445
His Val Thr Phe Pro Lys Glu Trp Lys Thr Ser Asp Leu Tyr Gln Leu
          450          455          460
Phe Ser Ala Phe Gly Asn Ile Gln Ile Ser Trp Ile Asp Asp Thr Ser
465          470          475          480
Ala Phe Val Ser Leu Ser Gln Pro Glu Gln Val Lys Ile Ala Val Asn
          485          490          495
Thr Ser Lys Tyr Ala Glu Ser Tyr Arg Ile Gln Thr Tyr Ala Glu Tyr
          500          505          510
Met Gly Arg Lys Gln Glu Glu Lys Gln Ile Lys Arg Lys Trp Thr Glu
          515          520          525
Asp Ser Trp Lys Glu Ala Asp Ser Lys Arg Leu Asn Pro Gln Cys Ile
530          535          540
Pro Tyr Thr Leu Gln Asn His Tyr Tyr Arg Asn Asn Ser Phe Thr Ala
545          550          555          560
Pro Ser Thr Val Gly Lys Arg Asn Leu Ser Pro Ser Gln Glu Glu Ala
          565          570          575
Gly Leu Glu Asp Gly Val Ser Gly Glu Ile Ser Asp Thr Glu Leu Glu
          580          585          590
Gln Thr Asp Ser Cys Ala Glu Pro Leu Ser Glu Gly Arg Lys Lys Ala
          595          600          605
Lys Lys Leu Lys Arg Met Lys Lys Glu Leu Ser Pro Ala Gly Ser Ile
610          615          620
Ser Lys Asn Ser Pro Ala Thr Leu Phe Glu Val Pro Asp Thr Trp
625          630          635          639

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<210> 1148
 <211> 474
 <212> PRT
 <213> Homo sapiens

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<400> 1148
Met Ala Leu Ala Val Ala Pro Trp Gly Arg Gln Trp Glu Glu Ala Arg
 1          5          10          15
Ala Leu Gly Arg Ala Val Arg Met Leu Gln Arg Leu Glu Glu Gln Cys
          20          25          30
Val Asp Pro Arg Leu Ser Val Ser Pro Pro Ser Leu Arg Asp Leu Leu
          35          40          45
Pro Arg Thr Ala Gln Leu Leu Arg Glu Val Ala His Ser Arg Arg Ala
          50          55          60
Ala Gly Gly Gly Gly Pro Gly Gly Pro Gly Gly Ser Gly Asp Phe Leu
65          70          75          80
Leu Ile Tyr Leu Ala Asn Leu Glu Ala Lys Ser Arg Gln Val Ala Ala
          85          90          95
Leu Leu Pro Leu Arg Gly Arg Arg Ser Ala Asn Asp Glu Leu Phe Arg
          100          105          110
Ala Gly Ser Arg Leu Arg Arg Gln Leu Ala Lys Leu Ala Ile Ile Phe
          115          120          125
Ser His Met His Ala Glu Leu His Ala Leu Phe Pro Gly Gly Lys Tyr
          130          135          140
Cys Gly His Met Tyr Gln Leu Thr Lys Ala Pro Ala His Thr Phe Trp
145          150          155          160
Arg Glu Ser Cys Gly Ala Arg Cys Val Leu Pro Trp Ala Glu Phe Glu
          165          170          175

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Ser Leu Leu Gly Thr Cys His Pro Val Glu Pro Gly Cys Thr Ala Leu
      180                      185                      190
Ala Leu Arg Thr Thr Ile Asp Leu Thr Cys Ser Gly His Val Ser Ile
      195                      200                      205
Phe Glu Phe Asp Val Phe Thr Arg Leu Phe Gln Pro Trp Pro Thr Leu
      210                      215                      220
Leu Lys Asn Trp Gln Leu Leu Ala Val Asn His Pro Gly Tyr Met Ala
      225                      230                      235                      240
Phe Leu Thr Tyr Asp Glu Val Gln Glu Arg Leu Gln Ala Cys Arg Asp
      245                      250                      255
Lys Pro Gly Ser Tyr Ile Phe Arg Pro Ser Cys Thr Arg Leu Gly Gln
      260                      265                      270
Trp Ala Ile Gly Tyr Val Ser Ser Asp Gly Ser Ile Leu Gln Thr Ile
      275                      280                      285
Pro Ala Asn Lys Pro Leu Ser Gln Val Leu Leu Glu Gly Gln Lys Asp
      290                      295                      300
Gly Phe Tyr Leu Tyr Pro Asp Gly Lys Thr His Asn Pro Asp Leu Thr
      305                      310                      315                      320
Glu Leu Gly Gln Ala Glu Pro Gln Gln Arg Ile His Val Ser Glu Glu
      325                      330                      335
Gln Leu Gln Leu Tyr Trp Ala Met Asp Ser Thr Phe Glu Leu Cys Lys
      340                      345                      350
Ile Cys Ala Glu Ser Asn Lys Asp Val Lys Ile Glu Pro Cys Gly His
      355                      360                      365
Leu Leu Cys Ser Cys Cys Leu Ala Ala Trp Gln His Ser Asp Ser Gln
      370                      375                      380
Thr Cys Pro Phe Cys Arg Cys Glu Ile Lys Gly Trp Glu Ala Val Ser
      385                      390                      395                      400
Ile Tyr Gln Phe His Gly Gln Ala Thr Ala Glu Asp Ser Gly Asn Ser
      405                      410                      415
Ser Asp Gln Glu Gly Arg Glu Leu Glu Leu Gly Gln Val Pro Leu Ser
      420                      425                      430
Ala Pro Pro Leu Pro Pro Arg Pro Asp Leu Pro Pro Arg Lys Pro Arg
      435                      440                      445
Asn Ala Gln Pro Lys Val Arg Leu Leu Lys Gly Asn Ser Pro Pro Ala
      450                      455                      460
Ala Leu Gly Pro Gln Asp Pro Ala Pro Ala
      465                      470                      474

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<210> 1149

<211> 1068

<212> PRT

<213> Homo sapiens

<400> 1149

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Met Arg Asn Lys Lys His Ser Asn Asn Trp Leu Ala Gln His Trp Phe
  1      5      10
Gln Ser Ser Ile Ile Leu Cys Phe Ser Pro Val Gly Arg Thr Leu Arg
      20      25      30
Val Arg Ala Arg Lys Phe Pro Ala Ile Val Asn Cys Thr Ala Ile Asp
      35      40      45
Trp Phe His Ala Trp Pro Gln Glu Ala Leu Val Ser Val Ser Arg Arg
      50      55      60
Phe Ile Glu Glu Thr Lys Gly Ile Glu Pro Val His Lys Asp Ser Ile
      65      70      75      80
Ser Leu Phe Met Ala His Val His Thr Thr Val Asn Glu Met Ser Thr
      85      90      95
Arg Tyr Tyr Gln Asn Glu Arg Arg His Asn Tyr Thr Thr Pro Lys Ser
      100     105     110
Phe Leu Glu Gln Ile Ser Leu Phe Lys Asn Leu Leu Lys Lys Lys Gln
      115     120     125

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Asn	Glu	Val	Ser	Glu	Lys	Lys	Glu	Arg	Leu	Val	Asn	Gly	Ile	Gln	Lys
130						135					140				
Leu	Lys	Thr	Thr	Ala	Ser	Gln	Val	Gly	Asp	Leu	Lys	Ala	Arg	Leu	Ala
145					150					155					160
Ser	Gln	Glu	Ala	Glu	Leu	Gln	Leu	Arg	Asn	His	Asp	Ala	Glu	Ala	Leu
				165					170					175	
Ile	Thr	Lys	Ile	Gly	Leu	Gln	Thr	Glu	Lys	Val	Ser	Arg	Glu	Lys	Thr
			180					185					190		
Ile	Ala	Asp	Ala	Glu	Glu	Arg	Lys	Val	Thr	Ala	Ile	Gln	Thr	Glu	Val
		195					200					205			
Phe	Gln	Lys	Gln	Arg	Glu	Cys	Glu	Ala	Asp	Leu	Leu	Lys	Ala	Glu	Pro
210						215					220				
Ala	Leu	Val	Ala	Ala	Thr	Ala	Ala	Leu	Asn	Thr	Leu	Asn	Arg	Val	Asn
225					230					235					240
Leu	Ser	Glu	Leu	Lys	Ala	Phe	Pro	Asn	Pro	Pro	Ile	Ala	Val	Thr	Asn
				245					250					255	
Val	Thr	Ala	Ala	Val	Met	Val	Leu	Leu	Ala	Pro	Arg	Gly	Arg	Val	Pro
			260						265				270		
Lys	Asp	Arg	Ser	Trp	Lys	Ala	Ala	Lys	Val	Phe	Met	Gly	Lys	Val	Asp
		275					280					285			
Asp	Phe	Leu	Gln	Ala	Leu	Ile	Asn	Tyr	Asp	Lys	Glu	His	Ile	Pro	Glu
290						295					300				
Asn	Cys	Leu	Lys	Val	Val	Asn	Glu	His	Tyr	Leu	Lys	Asp	Pro	Glu	Phe
305				310						315					320
Asn	Pro	Asn	Leu	Ile	Arg	Thr	Lys	Ser	Phe	Ala	Ala	Ala	Gly	Leu	Cys
				325					330					335	
Ala	Trp	Val	Ile	Asn	Ile	Ile	Lys	Phe	Tyr	Glu	Val	Tyr	Cys	Asp	Val
		340						345					350		
Glu	Pro	Lys	Arg	Gln	Ala	Leu	Ala	Gln	Ala	Asn	Leu	Glu	Leu	Ala	Ala
		355					360					365			
Ala	Thr	Glu	Lys	Leu	Glu	Ala	Ile	Arg	Lys	Lys	Leu	Val	Val	Ser	Ala
370						375					380				
Asn	Tyr	Asp	Ile	Glu	Lys	Ser	Glu	Lys	Ile	Arg	Trp	Gly	Gln	Ser	Ile
385					390					395					400
Lys	Ser	Phe	Glu	Ala	Gln	Glu	Lys	Thr	Leu	Cys	Gly	Asp	Val	Leu	Leu
			405						410					415	
Thr	Ala	Ala	Phe	Val	Ser	Tyr	Val	Gly	Pro	Phe	Thr	Arg	Gln	Tyr	Arg
			420					425					430		
Gln	Glu	Leu	Val	His	Cys	Lys	Trp	Val	Pro	Phe	Leu	Gln	Gln	Lys	Val
		435					440					445			
Ser	Ile	Pro	Leu	Thr	Glu	Gly	Leu	Asp	Leu	Ile	Ser	Met	Leu	Thr	Asp
450						455					460				
Asp	Ala	Thr	Ile	Ala	Ala	Trp	Asn	Asn	Glu	Gly	Leu	Pro	Ser	Asp	Arg
465					470					475					480
Met	Ser	Thr	Glu	Asn	Ala	Ala	Ile	Leu	Thr	His	Cys	Glu	Arg	Trp	Pro
				485					490					495	
Leu	Val	Ile	Asp	Pro	Gln	Gln	Gln	Gly	Ile	Lys	Trp	Ile	Lys	Asn	Lys
			500					505					510		
Tyr	Gly	Met	Asp	Leu	Lys	Val	Thr	His	Leu	Gly	Gln	Lys	Gly	Phe	Leu
		515					520					525			
Asn	Ala	Ile	Glu	Thr	Ala	Leu	Ala	Phe	Gly	Asp	Val	Ile	Leu	Ile	Glu
530						535					540				
Asn	Leu	Glu	Glu	Thr	Ile	Asp	Pro	Val	Leu	Asp	Pro	Leu	Leu	Gly	Arg
545					550					555					560
Asn	Thr	Ile	Lys	Lys	Gly	Lys	Tyr	Ile	Arg	Ile	Gly	Asp	Lys	Glu	Cys
			565						570					575	
Glu	Phe	Asn	Lys	Asn	Phe	Arg	Leu	Ile	Leu	His	Thr	Lys	Leu	Ala	Asn
			580					585					590		
Pro	His	Tyr	Lys	Pro	Glu	Leu	Gln	Ala	Gln	Thr	Thr	Leu	Leu	Asn	Phe
		595					600						605		
Thr	Val	Thr	Glu	Asp	Gly	Leu	Glu	Ala	Gln	Leu	Leu	Ala	Glu	Val	Val
610						615					620				
Ser	Ile	Glu	Arg	Pro	Asp	Leu	Glu	Lys	Leu	Lys	Leu	Val	Leu	Thr	Lys
625					630					635					640

His	Gln	Asn	Asp	Phe	Lys	Ile	Glu	Leu	Lys	Tyr	Leu	Glu	Asp	Asp	Leu	645	650	655
Leu	Leu	Arg	Leu	Ser	Ala	Ala	Glu	Gly	Ser	Phe	Leu	Asp	Asp	Thr	Lys	660	665	670
Leu	Val	Glu	Arg	Leu	Glu	Ala	Thr	Lys	Thr	Thr	Val	Ala	Glu	Ile	Glu	675	680	685
His	Lys	Val	Ile	Glu	Ala	Lys	Glu	Asn	Glu	Arg	Lys	Ile	Asn	Glu	Ala	690	695	700
Arg	Glu	Cys	Tyr	Arg	Pro	Val	Ala	Ala	Arg	Ala	Ser	Leu	Leu	Tyr	Phe	705	710	715
Val	Ile	Asn	Asp	Leu	Gln	Lys	Ile	Asn	Pro	Leu	Tyr	Gln	Phe	Ser	Leu	725	730	735
Lys	Ala	Phe	Asn	Val	Leu	Phe	His	Arg	Ala	Ile	Glu	Gln	Ala	Asp	Lys	740	745	750
Val	Glu	Asp	Met	Gln	Gly	Arg	Ile	Ser	Ile	Leu	Met	Glu	Ser	Ile	Thr	755	760	765
His	Ala	Val	Phe	Leu	Tyr	Thr	Ser	Gln	Ala	Leu	Phe	Glu	Lys	Asp	Lys	770	775	780
Leu	Thr	Phe	Leu	Ser	Gln	Met	Ala	Phe	Gln	Ile	Leu	Leu	Arg	Lys	Lys	785	790	795
Glu	Ile	Asp	Pro	Leu	Glu	Leu	Asp	Phe	Leu	Arg	Phe	Thr	Val	Glu		805	810	815
His	Thr	His	Leu	Ser	Pro	Val	Asp	Phe	Leu	Thr	Ser	Gln	Ser	Trp	Ser	820	825	830
Ala	Ile	Lys	Ala	Ile	Ala	Val	Met	Glu	Glu	Phe	Arg	Gly	Ile	Asp	Arg	835	840	845
Asp	Val	Glu	Gly	Ser	Ala	Lys	Gln	Trp	Arg	Lys	Trp	Val	Glu	Ser	Glu	850	855	860
Cys	Pro	Glu	Lys	Glu	Lys	Leu	Pro	Gln	Glu	Trp	Lys	Lys	Lys	Ser	Leu	865	870	875
Ile	Gln	Lys	Leu	Ile	Leu	Leu	Arg	Ala	Met	Arg	Pro	Asp	Arg	Met	Thr	885	890	895
Tyr	Ala	Leu	Arg	Asn	Phe	Val	Glu	Glu	Lys	Leu	Gly	Ala	Lys	Tyr	Val	900	905	910
Glu	Arg	Thr	Arg	Leu	Asp	Leu	Val	Lys	Ala	Phe	Glu	Glu	Ser	Ser	Pro	915	920	925
Ala	Thr	Pro	Ile	Phe	Phe	Ile	Leu	Ser	Pro	Gly	Val	Asp	Ala	Leu	Lys	930	935	940
Asp	Leu	Glu	Ile	Leu	Gly	Lys	Arg	Leu	Gly	Phe	Thr	Ile	Asp	Ser	Gly	945	950	955
Lys	Phe	His	Asn	Val	Ser	Leu	Gly	Gln	Gly	Gln	Glu	Thr	Val	Ala	Glu	965	970	975
Val	Ala	Leu	Glu	Lys	Ala	Ser	Lys	Gly	Gly	His	Trp	Val	Ile	Leu	Gln	980	985	990
Asn	Val	His	Leu	Val	Ala	Lys	Trp	Leu	Gly	Thr	Leu	Glu	Lys	Leu	Leu	995	1000	1005
Glu	Arg	Phe	Ser	Gln	Gly	Ser	His	Arg	Asp	Tyr	Arg	Val	Phe	Met	Ser	1010	1015	1020
Ala	Glu	Ser	Ala	Pro	Thr	Pro	Asp	Glu	His	Ile	Ile	Pro	Gln	Gly	Leu	1025	1030	1035
Leu	Glu	Asn	Ser	Ile	Lys	Ile	Thr	Asn	Glu	Pro	Pro	Thr	Gly	Met	Leu	1045	1050	1055
Ala	Asn	Leu	His	Ala	Ala	Leu	Tyr	Asn	Phe	Asp	Gln					1060	1065	1068

<210> 1150

<211> 117

<212> PRT

<213> Homo sapiens

<400> 1150

Met Leu Gly Leu Val Pro Gly Val Asp Gly Arg Ser Pro Arg Gly Gly
 1 5 10 15
 Arg Gly Gly Leu Gly Trp Arg Ser Cys Phe Leu Ser Asp Gly Glu Trp
 20 25 30
 Ile Leu Arg Thr Gly Ser Val Gly Ser Gly Leu Val Gly Ser Arg Gly
 35 40 45
 Ser Ala Gly Gly Pro Arg Leu Glu Met Asp Pro Asn Cys Ser Cys Ala
 50 55 60
 Thr Gly Gly Ser Cys Thr Cys Ala Gly Ser Cys Lys Cys Lys Glu Cys
 65 70 75 80
 Lys Cys Thr Ser Cys Lys Lys Ser Cys Cys Ser Cys Cys Pro Val Gly
 85 90 95
 Cys Ala Lys Cys Ala Gln Gly Cys Val Cys Lys Gly Ala Ser Glu Lys
 100 105 110
 Cys Ser Cys Cys Ala
 115 117

<210> 1151

<211> 953

<212> PRT

<213> Homo sapiens

<400> 1151

Met Glu Glu Gln Gly His Ser Glu Met Glu Ile Ile Pro Ser Glu Ser
 1 5 10 15
 His Pro His Ile Gln Leu Leu Lys Ser Asn Arg Glu Leu Leu Val Thr
 20 25 30
 His Ile Arg Asn Thr Gln Cys Leu Val Asp Asn Leu Leu Lys Asn Asp
 35 40 45
 Tyr Phe Ser Ala Glu Asp Ala Glu Ile Val Cys Ala Cys Pro Thr Gln
 50 55 60
 Pro Asp Lys Val Arg Lys Ile Leu Asp Leu Val Gln Ser Lys Gly Glu
 65 70 75 80
 Glu Val Ser Glu Phe Phe Leu Tyr Leu Leu Gln Gln Leu Ala Asp Ala
 85 90 95
 Tyr Val Asp Leu Arg Pro Trp Leu Leu Glu Ile Gly Phe Ser Pro Ser
 100 105 110
 Leu Leu Thr Gln Ser Lys Val Val Val Asn Thr Asp Pro Val Ser Arg
 115 120 125
 Tyr Thr Gln Gln Leu Arg His His Leu Gly Arg Asp Ser Lys Phe Val
 130 135 140
 Leu Cys Tyr Ala Gln Lys Glu Glu Leu Leu Leu Glu Glu Ile Tyr Met
 145 150 155 160
 Asp Thr Ile Met Glu Leu Val Gly Phe Ser Asn Glu Ser Leu Gly Ser
 165 170 175
 Leu Asn Ser Leu Ala Cys Leu Leu Asp His Thr Thr Gly Ile Leu Asn
 180 185 190
 Glu Gln Gly Glu Thr Ile Phe Ile Leu Gly Asp Ala Gly Val Gly Lys
 195 200 205
 Ser Met Leu Leu Gln Arg Leu Gln Ser Leu Trp Ala Thr Gly Arg Leu
 210 215 220
 Asp Ala Gly Val Lys Phe Phe Phe His Phe Arg Cys Arg Met Phe Ser
 225 230 235 240
 Cys Phe Lys Glu Ser Asp Arg Leu Cys Leu Gln Asp Leu Leu Phe Lys
 245 250 255
 His Tyr Cys Tyr Pro Glu Arg Asp Pro Glu Glu Val Phe Ala Phe Leu
 260 265 270
 Leu Arg Phe Pro His Val Ala Leu Phe Thr Phe Asp Gly Leu Asp Glu
 275 280 285
 Leu His Ser Asp Leu Asp Leu Ser Arg Val Pro Asp Ser Ser Cys Pro
 290 295 300

Trp	Glu	Pro	Ala	His	Pro	Leu	Val	Leu	Leu	Ala	Asn	Leu	Leu	Ser	Gly
305					310					315					320
Lys	Leu	Leu	Lys	Gly	Ala	Ser	Lys	Leu	Leu	Thr	Ala	Arg	Thr	Gly	Ile
				325						330					335
Glu	Val	Pro	Arg	Gln	Phe	Leu	Arg	Lys	Lys	Val	Leu	Leu	Arg	Gly	Phe
				340						345					350
Ser	Pro	Ser	His	Leu	Arg	Ala	Tyr	Ala	Arg	Arg	Met	Phe	Pro	Glu	Arg
				355						360					365
Ala	Leu	Gln	Asp	Arg	Leu	Leu	Ser	Gln	Leu	Glu	Ala	Asn	Pro	Asn	Leu
Cys	Ser	Leu	Cys	Ser	Val	Pro	Leu	Phe	Cys	Trp	Ile	Ile	Phe	Arg	Cys
385					390					395					400
Phe	Gln	His	Phe	Arg	Ala	Ala	Phe	Glu	Gly	Ser	Pro	Gln	Leu	Pro	Asp
				405						410					415
Cys	Thr	Met	Thr	Leu	Thr	Asp	Val	Phe	Leu	Leu	Val	Thr	Glu	Val	His
				420						425					430
Leu	Asn	Arg	Met	Gln	Pro	Ser	Ser	Leu	Val	Gln	Arg	Asn	Thr	Arg	Ser
				435						440					445
Pro	Val	Glu	Thr	Leu	His	Ala	Gly	Arg	Asp	Thr	Leu	Cys	Ser	Leu	Gly
Gln	Val	Ala	His	Arg	Gly	Met	Glu	Lys	Ser	Leu	Phe	Val	Phe	Thr	Gln
465					470					475					480
Glu	Glu	Val	Gln	Ala	Ser	Gly	Leu	Gln	Glu	Arg	Asp	Met	Gln	Leu	Gly
				485						490					495
Phe	Leu	Arg	Ala	Leu	Pro	Glu	Leu	Gly	Pro	Gly	Gly	Asp	Gln	Gln	Ser
				500						505					510
Tyr	Glu	Phe	Phe	His	Leu	Thr	Leu	Gln	Ala	Phe	Phe	Thr	Ala	Phe	Phe
				515						520					525
Leu	Val	Leu	Asp	Asp	Arg	Val	Gly	Thr	Gln	Glu	Leu	Leu	Arg	Phe	Phe
Gln	Glu	Trp	Met	Pro	Pro	Ala	Gly	Ala	Ala	Thr	Thr	Ser	Cys	Tyr	Pro
545					550					555					560
Pro	Phe	Leu	Pro	Phe	Gln	Cys	Leu	Gln	Gly	Ser	Gly	Pro	Ala	Arg	Glu
				565						570					575
Asp	Leu	Phe	Lys	Asn	Lys	Asp	His	Phe	Gln	Phe	Thr	Asn	Leu	Phe	Leu
				580						585					590
Cys	Gly	Leu	Leu	Ser	Lys	Ala	Lys	Gln	Lys	Leu	Leu	Arg	His	Leu	Val
				595						600					605
Pro	Ala	Ala	Ala	Leu	Arg	Arg	Lys	Arg	Lys	Ala	Leu	Trp	Ala	His	Leu
Phe	Ser	Ser	Leu	Arg	Gly	Tyr	Leu	Lys	Ser	Leu	Pro	Arg	Val	Gln	Val
625					630					635					640
Glu	Ser	Phe	Asn	Gln	Val	Gln	Ala	Met	Pro	Thr	Phe	Ile	Trp	Met	Leu
				645						650					655
Arg	Cys	Ile	Tyr	Glu	Thr	Gln	Ser	Gln	Lys	Val	Gly	Gln	Leu	Ala	Ala
				660						665					670
Arg	Gly	Ile	Cys	Ala	Asn	Tyr	Leu	Lys	Leu	Thr	Tyr	Cys	Asn	Ala	Cys
				675						680					685
Ser	Ala	Asp	Cys	Ser	Ala	Leu	Ser	Phe	Val	Leu	His	His	Phe	Pro	Lys
Arg	Leu	Ala	Leu	Asp	Leu	Asp	Asn	Asn	Asn	Leu	Asn	Asp	Tyr	Gly	Val
705					710					715					720
Arg	Glu	Leu	Gln	Pro	Cys	Phe	Ser	Arg	Leu	Thr	Val	Leu	Arg	Leu	Ser
				725						730					735
Val	Asn	Gln	Ile	Thr	Asp	Gly	Gly	Val	Lys	Val	Leu	Ser	Glu	Glu	Leu
				740						745					750
Thr	Lys	Tyr	Lys	Ile	Val	Thr	Tyr	Leu	Gly	Leu	Tyr	Asn	Asn	Gln	Ile
				755						760					765
Thr	Asp	Val	Gly	Ala	Arg	Tyr	Val	Thr	Lys	Ile	Leu	Asp	Glu	Cys	Lys
Gly	Leu	Thr	His	Leu	Lys	Leu	Gly	Lys	Asn	Lys	Ile	Thr	Ser	Glu	Gly
785					790					795					800
Gly	Lys	Tyr	Leu	Ala	Leu	Ala	Val	Lys	Asn	Ser	Lys	Ser	Ile	Ser	Glu
				805						810					815

Val	Gly	Met	Trp	Gly	Asn	Gln	Val	Gly	Asp	Glu	Gly	Ala	Lys	Ala	Phe
			820					825					830		
Ala	Glu	Ala	Leu	Arg	Asn	His	Pro	Ser	Leu	Thr	Thr	Leu	Ser	Leu	Ala
		835					840					845			
Ser	Asn	Gly	Ile	Ser	Thr	Glu	Gly	Gly	Lys	Ser	Leu	Ala	Arg	Ala	Leu
	850					855					860				
Gln	Gln	Asn	Thr	Ser	Leu	Glu	Ile	Leu	Trp	Leu	Thr	Gln	Asn	Glu	Leu
865						870				875					880
Asn	Asp	Glu	Val	Ala	Glu	Ser	Leu	Ala	Glu	Met	Leu	Lys	Val	Asn	Gln
			885						890					895	
Thr	Leu	Lys	His	Leu	Trp	Leu	Ile	Gln	Asn	Gln	Ile	Thr	Ala	Lys	Gly
			900					905					910		
Thr	Ala	Gln	Leu	Ala	Asp	Ala	Leu	Gln	Ser	Asn	Thr	Gly	Ile	Thr	Glu
		915					920					925			
Ile	Cys	Leu	Asn	Gly	Asn	Leu	Ile	Lys	Pro	Glu	Glu	Ala	Lys	Val	Tyr
	930					935					940				
Glu	Asp	Glu	Lys	Arg	Ile	Ile	Cys	Phe							
945					950			953							

<210> 1152
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 1152

Met	Gly	Cys	Asp	Gly	Gly	Thr	Ile	Pro	Lys	Arg	His	Glu	Leu	Val	Lys
1				5					10					15	
Gly	Pro	Lys	Lys	Val	Glu	Lys	Val	Asp	Lys	Asp	Ala	Glu	Leu	Val	Ala
			20					25					30		
Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro	Ile
		35					40					45			
Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile	Glu
	50					55					60				
Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala	Ser
	65				70				75						80
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp	Asn
				85					90					95	
Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His	Asp
		100						105					110		
Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu	Met
		115					120					125			
Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val	Phe
	130					135						140			
Ser	Glu	Arg	Ala	Leu	Lys	Glu	Ile	Lys	Ala	Glu	Val	Cys	His	Thr	Cys
					150					155					160
Gly	Ala	Ala	Phe	Gln	Glu	Asp	Asp	Val	Ile	Val	Leu	Asn	Gly	Thr	Lys
			165					170						175	
Glu	Asp	Val	Asp	Val	Leu	Lys	Thr	Arg	Met	Glu	Glu	Arg	Arg	Leu	Arg
			180					185					190		
Ala	Lys	Leu	Glu	Lys	Lys	Thr	Lys	Lys	Pro	Lys	Ala	Ala	Glu	Ser	Val
		195					200					205			
Ser	Lys	Pro	Asp	Val	Ser	Glu	Ala	Pro	Gly	Pro	Ser	Lys	Val	Lys	
	210					215				220					
Thr	Gly	Lys	Pro	Glu	Glu	Ala	Ser	Leu	Asp	Ser	Arg	Glu	Lys	Lys	Thr
	225				230					235					240
Asn	Leu	Ala	Pro	Lys	Ser	Thr	Ala	Met	Asn	Glu	Ser	Ser	Ser	Gly	Lys
				245					250					255	
Ala	Gly	Lys	Pro	Pro	Cys	Gly	Ala	Thr	Lys	Arg	Ser	Ile	Ala	Asp	Ser
		260					265						270		
Glu	Glu	Ser	Glu	Ala	Tyr	Lys	Ser	Leu	Phe	Thr	Thr	His	Ser	Ser	Ala
		275					280								285

Lys Arg Ser Lys Glu Glu Ser Ala His Trp Val Thr His Thr Ser Tyr
 290 295 300
 Cys Phe *
 305 306

<210> 1153
 <211> 540
 <212> PRT
 <213> Homo sapiens

<400> 1153
 Met Lys Arg Met Val Ser Trp Ser Phe His Lys Leu Lys Thr Met Lys
 1 5 10 15
 His Leu Leu Leu Leu Leu Leu Cys Val Phe Leu Val Lys Ser Gln Gly
 20 25 30
 Val Asn Asp Asn Glu Glu Gln Tyr Arg Ile Thr Ile Lys Arg Thr Arg
 35 40 45
 Ser Glu Asn Leu Thr Asn Tyr Lys Ile Ile Lys Glu Gln Asn Phe Lys
 50 55 60
 Ile Lys Glu Thr Gly Asp Glu Lys Thr Gly Ala Gln Ile Lys Gln Leu
 65 70 75 80
 Ala Gln Gly Leu Ile Ala Gly Phe Phe Ser Ala Arg Gly His Arg Pro
 85 90 95
 Leu Asp Lys Lys Arg Glu Glu Ala Pro Ser Leu Arg Pro Ala Pro Pro
 100 105 110
 Pro Ile Ser Gly Gly Gly Tyr Arg Ala Arg Pro Ala Lys Ala Ala Ala
 115 120 125
 Thr Gln Lys Lys Val Glu Arg Lys Ala Pro Asp Ala Gly Gly Cys Leu
 130 135 140
 His Ala Asp Pro Asp Leu Gly Val Leu Cys Pro Thr Gly Cys Gln Leu
 145 150 155 160
 Gln Glu Ala Leu Leu Gln Gln Glu Arg Pro Ile Arg Asn Ser Val Asp
 165 170 175
 Glu Leu Asn Asn Asn Val Glu Ala Val Ser Gln Thr Ser Ser Ser Ser
 180 185 190
 Phe Gln Tyr Met Tyr Leu Leu Lys Asp Leu Trp Gln Lys Arg Gln Lys
 195 200 205
 Gln Val Lys Asp Asn Glu Asn Val Val Asn Glu Tyr Ser Ser Glu Leu
 210 215 220
 Glu Lys His Gln Leu Tyr Ile Asp Glu Thr Val Asn Ser Asn Ile Pro
 225 230 235 240
 Thr Asn Leu Arg Val Leu Arg Ser Ile Leu Glu Asn Leu Arg Ser Lys
 245 250 255
 Ile Gln Lys Leu Glu Ser Asp Val Ser Ala Gln Met Glu Tyr Cys Arg
 260 265 270
 Thr Pro Cys Thr Val Ser Cys Asn Ile Pro Val Val Ser Gly Lys Glu
 275 280 285
 Cys Glu Glu Ile Ile Arg Lys Gly Gly Glu Thr Ser Glu Met Tyr Leu
 290 295 300
 Ile Gln Pro Asp Ser Ser Val Lys Pro Tyr Arg Val Tyr Cys Asp Met
 305 310 315 320
 Asn Thr Glu Asn Gly Gly Trp Thr Val Ile Gln Asn Arg Gln Asp Gly
 325 330 335
 Ser Val Asp Phe Gly Arg Lys Trp Asp Pro Tyr Lys Gln Gly Phe Gly
 340 345 350
 Asn Val Ala Thr Asn Thr Asp Gly Lys Asn Tyr Cys Gly Leu Pro Gly
 355 360 365
 Glu Tyr Trp Leu Gly Asn Asp Lys Ile Ser Gln Leu Thr Arg Met Gly
 370 375 380
 Pro Thr Glu Leu Leu Ile Glu Met Glu Asp Trp Lys Gly Asp Lys Val
 385 390 395 400

Lys	Ala	His	Tyr	Gly	Gly	Phe	Thr	Val	Gln	Asn	Glu	Ala	Asn	Lys	Tyr
				405					410					415	
Gln	Ile	Ser	Val	Asn	Lys	Tyr	Arg	Gly	Thr	Ala	Gly	Asn	Ala	Leu	Met
			420					425					430		
Asp	Gly	Ala	Ser	Gln	Leu	Met	Gly	Glu	Asn	Arg	Thr	Met	Thr	Ile	His
		435					440					445			
Asn	Gly	Met	Phe	Phe	Ser	Thr	Tyr	Asp	Arg	Asp	Asn	Asp	Gly	Trp	Leu
	450					455					460				
Thr	Ser	Asp	Pro	Arg	Lys	Gln	Cys	Ser	Lys	Glu	Asp	Gly	Gly	Gly	Trp
465					470					475					480
Trp	Tyr	Asn	Arg	Cys	His	Ala	Ala	Asn	Pro	Asn	Gly	Arg	Tyr	Tyr	Trp
			485						490					495	
Gly	Gly	Gln	Tyr	Thr	Trp	Asp	Met	Ala	Lys	His	Gly	Thr	Asp	Asp	Gly
		500						505					510		
Val	Val	Trp	Met	Asn	Trp	Lys	Gly	Ser	Trp	Tyr	Ser	Met	Arg	Lys	Met
	515					520						525			
Ser	Met	Lys	Ile	Arg	Pro	Phe	Phe	Pro	Gln	Gln	*				
	530					535				539					

<210> 1154
 <211> 492
 <212> PRT
 <213> Homo sapiens

<400> 1154

Met	Lys	Arg	Met	Val	Ser	Trp	Ser	Phe	His	Lys	Leu	Lys	Thr	Met	Lys
1				5					10					15	
His	Leu	Leu	Leu	Leu	Leu	Leu	Cys	Val	Phe	Leu	Val	Lys	Ser	Gln	Gly
			20					25					30		
Val	Asn	Asp	Asn	Glu	Glu	Gly	Phe	Phe	Ser	Ala	Arg	Gly	His	Arg	Pro
		35					40					45			
Leu	Asp	Lys	Lys	Arg	Glu	Glu	Ala	Pro	Ser	Leu	Arg	Pro	Ala	Pro	Pro
	50					55					60				
Pro	Ile	Ser	Gly	Gly	Gly	Tyr	Arg	Ala	Arg	Pro	Ala	Lys	Ala	Ala	Ala
65					70				75					80	
Thr	Gln	Lys	Lys	Val	Glu	Arg	Lys	Ala	Pro	Asp	Ala	Gly	Gly	Cys	Leu
				85					90					95	
His	Ala	Asp	Pro	Asp	Leu	Gly	Val	Leu	Cys	Pro	Thr	Gly	Cys	Gln	Leu
			100					105					110		
Gln	Glu	Ala	Leu	Leu	Gln	Gln	Glu	Arg	Pro	Ile	Arg	Asn	Ser	Val	Asp
		115					120					125			
Glu	Leu	Asn	Asn	Asn	Val	Glu	Ala	Val	Ser	Gln	Thr	Ser	Ser	Ser	Ser
	130					135					140				
Phe	Gln	Tyr	Met	Tyr	Leu	Leu	Lys	Asp	Leu	Trp	Gln	Lys	Arg	Gln	Lys
145					150					155					160
Gln	Val	Lys	Asp	Asn	Glu	Asn	Val	Val	Asn	Glu	Tyr	Ser	Ser	Glu	Leu
			165						170					175	
Glu	Lys	His	Gln	Leu	Tyr	Ile	Asp	Glu	Thr	Val	Asn	Ser	Asn	Ile	Pro
			180					185					190		
Thr	Asn	Leu	Arg	Val	Leu	Arg	Ser	Ile	Leu	Glu	Asn	Leu	Arg	Ser	Lys
	195						200						205		
Ile	Gln	Lys	Leu	Glu	Ser	Asp	Val	Ser	Ala	Gln	Met	Glu	Tyr	Cys	Arg
	210					215					220				
Thr	Pro	Cys	Thr	Val	Ser	Cys	Asn	Ile	Pro	Val	Val	Ser	Gly	Lys	Glu
225					230					235				240	
Cys	Glu	Glu	Ile	Ile	Arg	Lys	Gly	Gly	Glu	Thr	Ser	Glu	Met	Tyr	Leu
			245						250					255	
Ile	Gln	Pro	Asp	Ser	Ser	Val	Lys	Pro	Tyr	Arg	Val	Tyr	Cys	Asp	Met
		260						265					270		
Asn	Thr	Glu	Asn	Gly	Gly	Trp	Thr	Val	Ile	Gln	Asn	Arg	Gln	Asp	Gly
	275						280						285		

Ser	Val	Asp	Phe	Gly	Arg	Lys	Trp	Asp	Pro	Tyr	Lys	Gln	Gly	Phe	Gly
290						295					300				
Asn	Val	Ala	Thr	Asn	Thr	Asp	Gly	Lys	Asn	Tyr	Cys	Gly	Leu	Pro	Gly
305				310						315					320
Glu	Tyr	Trp	Leu	Gly	Asn	Asp	Lys	Ile	Ser	Gln	Leu	Thr	Arg	Met	Gly
				325					330					335	
Pro	Thr	Glu	Leu	Leu	Ile	Glu	Met	Glu	Asp	Trp	Lys	Gly	Asp	Lys	Val
			340					345					350		
Lys	Ala	His	Tyr	Gly	Gly	Phe	Thr	Val	Gln	Asn	Glu	Ala	Asn	Lys	Tyr
	355					360						365			
Gln	Ile	Ser	Val	Asn	Lys	Tyr	Arg	Gly	Thr	Ala	Gly	Asn	Ala	Leu	Met
370						375					380				
Asp	Gly	Ala	Ser	Gln	Leu	Met	Gly	Glu	Asn	Arg	Thr	Met	Thr	Ile	His
385					390					395					400
Asn	Gly	Met	Phe	Phe	Ser	Thr	Tyr	Asp	Arg	Asp	Asn	Asp	Gly	Trp	Leu
			405					410						415	
Thr	Ser	Asp	Pro	Arg	Lys	Gln	Cys	Ser	Lys	Glu	Asp	Gly	Gly	Gly	Trp
			420					425					430		
Trp	Tyr	Asn	Arg	Cys	His	Ala	Ala	Asn	Pro	Asn	Gly	Arg	Tyr	Tyr	Trp
		435				440						445			
Gly	Gly	Gln	Tyr	Thr	Trp	Asp	Met	Ala	Lys	His	Gly	Thr	Asp	Asp	Gly
450						455					460				
Val	Val	Trp	Met	Asn	Trp	Lys	Gly	Ser	Trp	Tyr	Ser	Met	Arg	Lys	Met
465					470					475					480
Ser	Met	Lys	Ile	Arg	Pro	Phe	Phe	Pro	Gln	Gln	*				
			485						490	491					

<210> 1155

<211> 454

<212> PRT

<213> Homo sapiens

<400> 1155

Met	Lys	Arg	Met	Val	Ser	Trp	Ser	Phe	His	Lys	Leu	Lys	Thr	Met	Lys
1				5					10					15	
His	Leu	Leu	Leu	Leu	Leu	Leu	Cys	Val	Phe	Leu	Val	Lys	Ser	Gln	Gly
			20					25					30		
Val	Asn	Asp	Asn	Glu	Glu	Gly	Phe	Phe	Ser	Ala	Arg	Gly	His	Arg	Pro
	35						40					45			
Leu	Asp	Lys	Lys	Arg	Glu	Glu	Ala	Pro	Ser	Leu	Arg	Pro	Ala	Pro	Pro
50						55					60				
Pro	Ile	Ser	Gly	Gly	Gly	Tyr	Arg	Ala	Arg	Pro	Ala	Lys	Ala	Ala	Ala
65					70					75					80
Thr	Gln	Lys	Lys	Val	Glu	Arg	Lys	Ala	Pro	Asp	Ala	Gly	Gly	Cys	Leu
				85					90					95	
His	Ala	Asp	Pro	Asp	Leu	Gly	Val	Leu	Cys	Pro	Thr	Gly	Cys	Gln	Leu
			100					105					110		
Gln	Glu	Ala	Leu	Leu	Gln	Gln	Glu	Arg	Pro	Ile	Arg	Asn	Ser	Val	Asp
		115					120					125			
Glu	Leu	Asn	Asn	Asn	Val	Glu	Ala	Val	Ser	Gln	Thr	Ser	Ser	Ser	Ser
	130					135					140				
Phe	Gln	Tyr	Met	Tyr	Leu	Lys	Asp	Leu	Trp	Gln	Lys	Arg	Gln	Lys	
145					150				155						160
Gln	Val	Lys	Asp	Asn	Glu	Asn	Val	Val	Asn	Glu	Tyr	Ser	Ser	Glu	Leu
				165					170					175	
Glu	Lys	His	Gln	Leu	Tyr	Ile	Asp	Glu	Thr	Val	Asn	Ser	Asn	Ile	Pro
			180					185					190		
Thr	Asn	Leu	Arg	Val	Leu	Arg	Ser	Ile	Leu	Glu	Asn	Leu	Arg	Ser	Lys
		195					200					205			
Ile	Gln	Lys	Leu	Glu	Ser	Asp	Val	Ser	Ala	Gln	Met	Glu	Tyr	Cys	Arg
210						215					220				

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Thr Pro Cys Thr Val Ser Cys Asn Ile Pro Val Val Ser Gly Lys Gly
225                230                235                240
Trp Thr Val Ile Gln Asn Arg Gln Asp Gly Ser Val Asp Phe Gly Arg
                245                250                255
Lys Trp Asp Pro Tyr Lys Gln Gly Phe Gly Asn Val Ala Thr Asn Thr
                260                265                270
Asp Gly Lys Asn Tyr Cys Gly Leu Pro Gly Glu Tyr Trp Leu Gly Asn
                275                280                285
Asp Lys Ile Ser Gln Leu Thr Arg Met Gly Pro Thr Glu Leu Leu Ile
290                295                300
Glu Met Glu Asp Trp Lys Gly Asp Lys Val Lys Ala His Tyr Gly Gly
305                310                315                320
Phe Thr Val Gln Asn Glu Ala Asn Lys Tyr Gln Ile Ser Val Asn Lys
                325                330                335
Tyr Arg Gly Thr Ala Gly Asn Ala Leu Met Asp Gly Ala Ser Gln Leu
                340                345                350
Met Gly Glu Asn Arg Thr Met Thr Ile His Asn Gly Met Phe Phe Ser
                355                360                365
Thr Tyr Asp Arg Asp Asn Asp Gly Trp Leu Thr Ser Asp Pro Arg Lys
                370                375                380
Gln Cys Ser Lys Glu Asp Gly Gly Gly Trp Trp Tyr Asn Arg Cys His
385                390                395                400
Ala Ala Asn Pro Asn Gly Arg Tyr Tyr Trp Gly Gly Gln Tyr Thr Trp
                405                410                415
Asp Met Ala Lys His Gly Thr Asp Asp Gly Val Val Trp Met Asn Trp
                420                425                430
Lys Gly Ser Trp Tyr Ser Met Arg Lys Met Ser Met Lys Ile Arg Pro
                435                440                445
Phe Phe Pro Gln Gln *
450                453

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<210> 1156
 <211> 151
 <212> PRT
 <213> Homo sapiens

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<400> 1156
Met Pro Arg Gly Ser Arg Ser Arg Thr Ser Arg Met Ala Pro Pro Ala
 1                5                10                15
Ser Arg Ala Pro Gln Met Arg Ala Ala Pro Arg Pro Ala Pro Val Ala
                20                25                30
Gln Pro Pro Ala Ala Ala Pro Pro Ser Ala Val Gly Ser Ser Ala Ala
                35                40                45
Ala Pro Arg Gln Pro Gly Leu Met Ala Gln Met Ala Thr Thr Ala Ala
                50                55                60
Gly Val Ala Val Gly Ser Ala Val Gly His Thr Leu Gly His Ala Ile
65                70                75                80
Thr Gly Gly Phe Ser Gly Gly Ser Asn Ala Glu Pro Ala Arg Pro Asp
                85                90                95
Ile Thr Tyr Gln Glu Pro Gln Gly Thr Gln Pro Ala Gln Gln Gln Gln
                100               105                110
Pro Cys Leu Tyr Glu Ile Lys Gln Phe Leu Glu Cys Ala Gln Asn Gln
                115                120                125
Gly Asp Ile Lys Leu Cys Glu Gly Phe Asn Glu Val Leu Lys Gln Cys
                130                135                140
Arg Leu Ala Asn Gly Leu Ala
145                150 151

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<210> 1157

<211> 230
 <212> PRT
 <213> Homo sapiens

<400> 1157
 Met Ala Gly Ala His Tyr Pro Leu His Cys Leu His Ser Ala Ala Ala
 1 5 10 15
 Ala Ala Ala Ala Gly Ser His His His His His Gln His His His
 20 25 30
 His Gly Ser Pro Tyr Ala Ser Gly Gly Gly Asn Ser Tyr Asn His Arg
 35 40 45
 Ser Leu Ala Ala Tyr Pro Tyr Met Ser His Ser Gln His Ser Pro Tyr
 50 55 60
 Leu Gln Ser Tyr His Asn Ser Ser Ala Ala Ala Gln Thr Arg Gly Asp
 65 70 75 80
 Asp Thr Asp Gln Gln Lys Thr Thr Val Ile Glu Asn Gly Glu Ile Arg
 85 90 95
 Phe Asn Gly Lys Gly Lys Lys Ile Arg Lys Pro Arg Thr Ile Tyr Ser
 100 105 110
 Ser Leu Gln Leu Gln Ala Leu Asn His Arg Phe Gln Gln Thr Gln Tyr
 115 120 125
 Leu Ala Leu Pro Glu Arg Ala Glu Leu Ala Ala Ser Leu Gly Leu Thr
 130 135 140
 Gln Thr Gln Val Lys Ile Trp Phe Gln Asn Lys Arg Ser Lys Phe Lys
 145 150 155 160
 Lys Leu Leu Lys Gln Gly Ser Asn Pro His Glu Ser Asp Pro Leu Gln
 165 170 175
 Gly Ser Ala Ala Leu Ser Pro Arg Ser Pro Ala Leu Pro Pro Val Trp
 180 185 190
 Asp Val Ser Ala Ser Ala Lys Gly Val Ser Met Pro Pro Asn Ser Tyr
 195 200 205
 Met Pro Gly Tyr Ser His Trp Tyr Ser Ser Pro His Gln Asp Thr Met
 210 215 220
 Gln Arg Pro Gln Met Met
 225 230

<210> 1158
 <211> 2100
 <212> PRT
 <213> Homo sapiens

<400> 1158
 Met Lys Tyr Ala Ile Tyr Ala Leu Cys Val Asn Ser His Gln His Ser
 1 5 10 15
 Gln Cys Gln Asp Cys Lys Asp Ser Leu Ser Glu Asp Leu Ala Ser Ala
 20 25 30
 Thr Glu Pro Ala Asn Asp Ser Leu Ser Ser Pro Gly Ala Ala Asn Leu
 35 40 45
 Phe Ser Thr Tyr Leu Ala Arg Cys Gln Gln Tyr Leu Cys Ser Ile Pro
 50 55 60
 Asp Ser Leu Cys Leu Glu Leu Leu Glu Asn Ile Phe Ser Leu Leu Leu
 65 70 75 80
 Ile Thr Ser Ala Asp Leu His Pro Glu Pro His Leu Pro Glu Asp Tyr
 85 90 95
 Ala Glu Asp Asp Asp Ile Glu Gly Lys Ser Pro Ser Gly Leu Arg Ser
 100 105 110
 Pro Ser Glu Ser Pro Gln His Ile Ala His Pro Glu Arg Lys Ser Glu
 115 120 125
 Arg Gly Ser Leu Gly Val Pro Lys Thr Leu Ala Tyr Thr Met Pro Ser
 130 135 140

His	Val	Lys	Ala	Glu	Pro	Lys	Asp	Ser	Tyr	Pro	Gly	Pro	His	Arg	His
145					150					155					160
Ser	Phe	Leu	Asp	Leu	Lys	His	Phe	Thr	Ser	Gly	Ile	Ser	Gly	Phe	Leu
			165						170						175
Ala	Asp	Glu	Phe	Ala	Ile	Gly	Ala	Phe	Leu	Arg	Leu	Leu	Gln	Glu	Gln
			180					185					190		
Leu	Asp	Glu	Ile	Ser	Ser	Arg	Ser	Pro	Pro	Glu	Lys	Pro	Lys	Gln	Glu
	195						200					205			
Ser	Gln	Ser	Cys	Ser	Gly	Ser	Arg	Asp	Gly	Leu	Gln	Ser	Arg	Leu	His
	210					215					220				
Arg	Leu	Ser	Lys	Val	Val	Ser	Glu	Ala	Gln	Trp	Arg	His	Lys	Val	Val
225					230					235					240
Thr	Ser	Asn	His	Arg	Ser	Gly	Glu	Arg	Arg	Val	Glu	Leu	Val	Gly	Pro
				245					250						255
Glu	Gly	Gly	Glu	Gly	Glu	Arg	Ser	Gln	Glu	Tyr	Gly	Arg	Glu	Leu	Gly
			260					265					270		
Val	His	Arg	Ser	His	Pro	Ile	Thr	Gln	Gly	Ile	Ser	Ser	Pro	Trp	Gln
	275						280					285			
Pro	Val	Ser	Glu	His	Trp	Gly	Met	Leu	His	Val	Ser	Glu	Pro	Ser	Ala
	290					295					300				
Asn	Leu	Pro	Gln	Pro	Val	Met	Pro	Arg	Lys	Gly	Gln	Ile	Lys	Val	Asp
305					310					315					320
His	Ser	Pro	Phe	Cys	Pro	Ile	Gly	Phe	Ala	Leu	Ser	Glu	Glu	Gln	Pro
				325					330						335
Ser	Arg	Arg	Tyr	Gln	Pro	Ala	Thr	Arg	His	Pro	Ser	Leu	Arg	Arg	Gly
			340					345					350		
Arg	Arg	Thr	Arg	Arg	Ser	Gln	Ala	Glu	Gly	Ser	Leu	Ser	Ala	Met	Ser
		355					360					365			
Gly	Arg	Asn	Glu	Leu	His	Ser	Arg	Leu	His	Pro	His	Pro	Gln	Ser	Ser
	370					375					380				
Leu	Ile	Pro	Met	Met	Phe	Ser	Pro	Pro	Glu	Ser	Leu	Leu	Ala	Ser	Cys
385					390					395					400
Ile	Leu	Arg	Gly	Asn	Phe	Ala	Glu	Ala	His	Gln	Val	Leu	Phe	Thr	Phe
				405					410						415
Asn	Leu	Lys	Ser	Ser	Pro	Ser	Ser	Gly	Glu	Leu	Met	Phe	Met	Glu	Arg
			420					425				430			
Tyr	Gln	Glu	Val	Ile	Gln	Glu	Leu	Ala	Gln	Val	Glu	His	Lys	Ile	Glu
		435					440					445			
Asn	Gln	Asn	Ser	Asp	Ala	Gly	Ser	Ser	Thr	Ile	Arg	Arg	Thr	Gly	Ser
	450					455					460				
Gly	Arg	Ser	Thr	Leu	Gln	Ala	Ile	Gly	Ser	Ala	Ala	Ala	Ala	Gly	Met
465					470					475					480
Val	Phe	Tyr	Ser	Ile	Ser	Asp	Val	Thr	Asp	Lys	Leu	Leu	Asn	Thr	Ser
				485					490						495
Gly	Asp	Pro	Ile	Pro	Met	Leu	Gln	Glu	Asp	Phe	Trp	Ile	Ser	Thr	Ala
			500					505					510		
Leu	Val	Glu	Pro	Thr	Ala	Pro	Leu	Arg	Glu	Val	Leu	Glu	Asp	Leu	Ser
		515					520					525			
Pro	Pro	Ala	Met	Ala	Ala	Phe	Asp	Leu	Ala	Cys	Ser	Gln	Cys	Gln	Leu
	530					535					540				
Trp	Lys	Thr	Cys	Lys	Gln	Leu	Leu	Glu	Thr	Ala	Glu	Arg	Arg	Leu	Asn
545					550					555					560
Ser	Ser	Leu	Glu	Arg	Arg	Gly	Arg	Arg	Ile	Asp	His	Val	Leu	Leu	Asn
				565					570						575
Ala	Asp	Gly	Ile	Arg	Gly	Phe	Pro	Val	Val	Leu	Gln	Gln	Ile	Ser	Lys
			580					585					590		
Ser	Leu	Asn	Tyr	Leu	Leu	Met	Ser	Ala	Ser	Gln	Thr	Lys	Ser	Glu	Ser
	595						600					605			
Val	Glu	Glu	Lys	Gly	Gly	Gly	Pro	Pro	Arg	Cys	Ser	Ile	Thr	Glu	Leu
	610					615						620			
Leu	Gln	Met	Cys	Trp	Pro	Ser	Leu	Ser	Glu	Asp	Cys	Val	Ala	Ser	His
625					630					635					640
Thr	Thr	Leu	Ser	Gln	Gln	Leu	Asp	Gln	Val	Leu	Gln	Ser	Leu	Arg	Glu
				645					650						655

Ala	Leu	Glu	Leu	Pro	Glu	Pro	Arg	Thr	Pro	Pro	Leu	Ser	Ser	Leu	Val
			660					665						670	
Glu	Gln	Ala	Ala	Gln	Lys	Ala	Pro	Glu	Ala	Glu	Ala	His	Pro	Val	Gln
		675					680					685			
Ile	Gln	Thr	Gln	Leu	Leu	Gln	Lys	Asn	Leu	Gly	Lys	Gln	Thr	Pro	Ser
	690					695					700				
Gly	Ser	Arg	Gln	Met	Asp	Tyr	Leu	Gly	Thr	Phe	Phe	Ser	Tyr	Cys	Ser
705					710					715					720
Thr	Leu	Ala	Ala	Val	Leu	Leu	Gln	Ser	Leu	Ser	Ser	Glu	Pro	Asp	His
				725					730					735	
Val	Glu	Val	Lys	Val	Gly	Asn	Pro	Phe	Val	Leu	Leu	Gln	Gln	Ser	Ser
			740					745					750		
Ser	Gln	Leu	Val	Ser	His	Leu	Leu	Phe	Glu	Arg	Gln	Val	Pro	Pro	Glu
		755					760					765			
Arg	Leu	Ala	Ala	Leu	Leu	Ala	Gln	Glu	Asn	Leu	Ser	Leu	Ser	Val	Pro
	770					775					780				
Gln	Val	Ile	Val	Ser	Cys	Cys	Cys	Glu	Pro	Leu	Ala	Leu	Cys	Ser	Ser
785					790					795					800
Arg	Gln	Ser	Gln	Gln	Thr	Ser	Ser	Leu	Leu	Thr	Arg	Leu	Gly	Thr	Leu
			805						810					815	
Ala	Gln	Leu	His	Ala	Ser	His	Cys	Leu	Asp	Asp	Leu	Pro	Leu	Ser	Thr
		820						825					830		
Pro	Ser	Ser	Pro	Arg	Thr	Thr	Glu	Asn	Pro	Thr	Leu	Glu	Arg	Lys	Pro
		835					840					845			
Tyr	Ser	Ser	Pro	Arg	Asp	Ser	Ser	Leu	Pro	Ala	Leu	Thr	Ser	Ser	Ala
	850				855						860				
Leu	Ala	Phe	Leu	Lys	Ser	Arg	Ser	Lys	Leu	Leu	Ala	Thr	Val	Ala	Cys
865					870					875					880
Leu	Gly	Ala	Ser	Pro	Arg	Leu	Lys	Val	Ser	Lys	Pro	Ser	Leu	Ser	Trp
			885						890					895	
Lys	Glu	Leu	Arg	Gly	Arg	Arg	Glu	Val	Pro	Leu	Ala	Ala	Glu	Gln	Val
		900						905					910		
Ala	Arg	Glu	Cys	Glu	Arg	Leu	Leu	Glu	Gln	Phe	Pro	Leu	Phe	Glu	Ala
		915					920						925		
Phe	Leu	Leu	Ala	Ala	Trp	Glu	Pro	Leu	Arg	Gly	Ser	Leu	Gln	Gln	Gly
	930					935					940				
Gln	Ser	Leu	Ala	Val	Asn	Leu	Cys	Gly	Trp	Ala	Ser	Leu	Ser	Thr	Val
945					950					955					960
Leu	Leu	Gly	Leu	His	Ser	Pro	Ile	Ala	Leu	Asp	Val	Leu	Ser	Glu	Ala
			965						970					975	
Phe	Glu	Glu	Ser	Leu	Val	Ala	Arg	Asp	Trp	Ser	Arg	Ala	Leu	Gln	Leu
		980						985					990		
Thr	Glu	Val	Tyr	Gly	Arg	Asp	Val	Asp	Asp	Leu	Ser	Ser	Ile	Lys	Asp
		995				1000						1005			
Ala	Val	Leu	Ser	Cys	Ala	Val	Ala	Cys	Asp	Lys	Glu	Gly	Trp	Gln	Tyr
	1010					1015					1020				
Leu	Phe	Pro	Val	Lys	Asp	Ala	Ser	Leu	Arg	Ser	Arg	Leu	Ala	Leu	Gln
1025				1030					1035					1040	
Phe	Val	Asp	Arg	Trp	Pro	Leu	Glu	Ser	Cys	Leu	Glu	Ile	Leu	Ala	Tyr
			1045						1050				1055		
Cys	Ile	Ser	Asp	Thr	Ala	Val	Gln	Glu	Gly	Leu	Lys	Cys	Glu	Leu	Gln
		1060						1065					1070		
Arg	Lys	Leu	Ala	Glu	Leu	Gln	Val	Tyr	Gln	Lys	Ile	Leu	Gly	Leu	Gln
		1075				1080						1085			
Ser	Pro	Pro	Val	Trp	Cys	Asp	Trp	Gln	Thr	Leu	Arg	Ser	Cys	Cys	Val
	1090					1095					1100				
Glu	Asp	Pro	Ser	Thr	Val	Met	Asn	Met	Ile	Leu	Glu	Ala	Gln	Glu	Tyr
1105				1110					1115					1120	
Glu	Leu	Cys	Glu	Glu	Trp	Gly	Cys	Leu	Tyr	Pro	Ile	Pro	Arg	Glu	His
			1125					1130					1135		
Leu	Ile	Ser	Leu	His	Gln	Lys	His	Leu	His	Leu	Leu	Glu	Arg	Arg	
		1140					1145					1150			
Asp	His	Asp	Lys	Ala	Leu	Gln	Leu	Leu	Arg	Arg	Ile	Pro	Asp	Pro	Thr
	1155					1160						1165			

Met Cys Leu Glu Val Thr Glu Gln Ser Leu Asp Gln His Thr Ser Leu
 1170 1175 1180
 Ala Thr Ser His Phe Leu Ala Asn Tyr Leu Thr Thr His Phe Tyr Gly
 1185 1190 1195 1200
 Gln Leu Thr Ala Val Arg His Arg Glu Ile Gln Ala Leu Tyr Val Gly
 1205 1210 1215
 Ser Lys Ile Leu Leu Thr Leu Pro Glu Gln His Arg Ala Ser Tyr Ser
 1220 1225 1230
 His Leu Ser Ser Asn Pro Leu Phe Met Leu Glu Gln Leu Leu Met Asn
 1235 1240 1245
 Met Lys Val Asp Trp Ala Thr Val Ala Val Gln Thr Leu Gln Gln Leu
 1250 1255 1260
 Leu Val Gly Gln Glu Ile Gly Phe Thr Met Asp Glu Val Asp Ser Leu
 1265 1270 1275 1280
 Leu Ser Arg Tyr Ala Glu Lys Ala Leu Asp Phe Pro Tyr Pro Gln Arg
 1285 1290 1295
 Glu Lys Arg Ser Asp Ser Val Ile His Leu Gln Glu Ile Val His Gln
 1300 1305 1310
 Ala Ala Asp Pro Glu Thr Leu Pro Arg Ser Pro Ser Ala Glu Phe Ser
 1315 1320 1325
 Pro Ala Ala Pro Pro Gly Ile Ser Ser Ile His Ser Pro Ser Leu Arg
 1330 1335 1340
 Glu Arg Ser Phe Pro Pro Thr Gln Pro Ser Gln Glu Phe Val Pro Pro
 1345 1350 1355 1360
 Ala Thr Pro Pro Ala Arg His Gln Trp Val Pro Asp Glu Thr Glu Ser
 1365 1370 1375
 Ile Cys Met Val Cys Cys Arg Glu His Phe Thr Met Phe Asn Arg Arg
 1380 1385 1390
 His His Cys Arg Arg Cys Gly Arg Leu Val Cys Ser Ser Cys Ser Thr
 1395 1400 1405
 Lys Lys Met Val Val Glu Gly Cys Arg Glu Asn Pro Ala Arg Val Cys
 1410 1415 1420
 Asp Gln Cys Tyr Ser Tyr Cys Asn Lys Asp Val Pro Glu Glu Pro Ser
 1425 1430 1435 1440
 Glu Lys Pro Glu Ala Leu Asp Ser Ser Lys Ser Glu Ser Pro Pro Tyr
 1445 1450 1455
 Ser Phe Val Val Arg Val Pro Lys Ala Asp Glu Val Glu Trp Ile Leu
 1460 1465 1470
 Asp Leu Lys Glu Glu Glu Asn Glu Leu Val Arg Ser Glu Phe Tyr Tyr
 1475 1480 1485
 Glu Gln Ala Pro Ser Ala Ser Leu Cys Ile Ala Ile Leu Asn Leu His
 1490 1495 1500
 Arg Asp Ser Ile Ala Cys Gly His Gln Leu Ile Glu His Cys Cys Arg
 1505 1510 1515 1520
 Leu Ser Lys Gly Leu Thr Asn Pro Glu Val Asp Ala Gly Leu Leu Thr
 1525 1530 1535
 Asp Ile Met Lys Gln Leu Leu Phe Ser Ala Lys Met Met Phe Val Lys
 1540 1545 1550
 Ala Gly Gln Ser Gln Asp Leu Ala Leu Cys Asp Ser Tyr Ile Ser Lys
 1555 1560 1565
 Val Asp Val Leu Asn Ile Leu Val Ala Ala Ala Tyr Arg His Val Pro
 1570 1575 1580
 Ser Leu Asp Gln Ile Leu Gln Pro Ala Ala Val Thr Arg Leu Arg Asn
 1585 1590 1595 1600
 Gln Leu Leu Glu Ala Glu Tyr Tyr Gln Leu Gly Val Glu Val Ser Thr
 1605 1610 1615
 Lys Thr Gly Leu Asp Thr Thr Gly Ala Trp His Ala Trp Gly Met Ala
 1620 1625 1630
 Cys Leu Lys Ala Gly Asn Leu Thr Ala Ala Arg Glu Lys Phe Ser Arg
 1635 1640 1645
 Cys Leu Lys Pro Pro Phe Asp Leu Asn Gln Leu Asn His Gly Ser Arg
 1650 1655 1660
 Leu Val Gln Asp Val Val Glu Tyr Leu Glu Ser Thr Val Arg Pro Phe
 1665 1670 1675 1680

Val Ser Leu Gln Asp Asp Tyr Phe Ala Thr Leu Arg Glu Leu Glu
 1685 1690 1695
 Ala Thr Leu Arg Thr Gln Ser Leu Ser Leu Ala Val Ile Pro Glu Gly
 1700 1705 1710
 Lys Ile Met Asn Asn Thr Tyr Tyr Gln Glu Cys Leu Phe Tyr Leu His
 1715 1720 1725
 Asn Tyr Ser Thr Asn Leu Ala Ile Ile Ser Phe Tyr Val Arg His Ser
 1730 1735 1740
 Cys Leu Arg Glu Ala Leu Leu His Leu Leu Asn Lys Glu Ser Pro Pro
 1745 1750 1755 1760
 Glu Val Phe Ile Glu Gly Ile Phe Gln Pro Ser Tyr Lys Ser Gly Lys
 1765 1770 1775
 Leu His Thr Leu Glu Asn Leu Leu Glu Ser Ile Asp Pro Thr Leu Glu
 1780 1785 1790
 Ser Trp Gly Lys Tyr Leu Ile Ala Ala Cys Gln His Leu Gln Lys Lys
 1795 1800 1805
 Asn Tyr Tyr His Ile Leu Tyr Glu Leu Gln Gln Phe Met Lys Asp Gln
 1810 1815 1820
 Val Arg Ala Ala Met Thr Cys Ile Arg Phe Phe Ser His Lys Ala Lys
 1825 1830 1835 1840
 Ser Tyr Thr Glu Leu Gly Glu Lys Leu Ser Trp Leu Leu Lys Ala Lys
 1845 1850 1855
 Asp His Leu Lys Ile Tyr Leu Gln Glu Thr Ser Arg Ser Ser Gly Arg
 1860 1865 1870
 Lys Lys Thr Thr Phe Phe Arg Lys Lys Met Thr Ala Ala Asp Val Ser
 1875 1880 1885
 Arg His Met Asn Thr Leu Gln Leu Gln Met Glu Val Thr Arg Phe Leu
 1890 1895 1900
 His Arg Cys Glu Ser Ala Gly Thr Ser Gln Ile Thr Thr Leu Pro Leu
 1905 1910 1915 1920
 Pro Thr Leu Phe Gly Asn Asn His Met Lys Met Asp Val Ala Cys Lys
 1925 1930 1935
 Val Met Leu Gly Gly Lys Asn Val Glu Asp Gly Phe Gly Ile Ala Phe
 1940 1945 1950
 Arg Val Leu Gln Asp Phe Gln Leu Asp Ala Ala Met Thr Tyr Cys Arg
 1955 1960 1965
 Ala Ala Arg Gln Leu Val Glu Lys Glu Lys Tyr Ser Glu Ile Gln Gln
 1970 1975 1980
 Leu Leu Lys Cys Val Ser Glu Ser Gly Met Ala Ala Lys Ser Asp Gly
 1985 1990 1995 2000
 Asp Thr Ile Leu Leu Asn Cys Leu Glu Ala Phe Lys Arg Ile Pro Pro
 2005 2010 2015
 Gln Glu Leu Glu Gly Leu Ile Gln Ala Ile His Asn Asp Asp Asn Lys
 2020 2025 2030
 Val Arg Ala Tyr Leu Ile Cys Cys Lys Leu Arg Ser Ala Tyr Leu Ile
 2035 2040 2045
 Ala Val Lys Gln Glu His Ser Arg Ala Thr Ala Leu Val Gln Gln Val
 2050 2055 2060
 Gln Gln Ala Ala Lys Ser Ser Gly Asp Ala Val Val Gln Asp Ile Cys
 2065 2070 2075 2080
 Ala Gln Trp Leu Leu Thr Ser His Pro Arg Gly Ala His Gly Pro Gly
 2085 2090 2095
 Ser Arg Lys *
 2099

<210> 1159

<211> 711

<212> PRT

<213> Homo sapiens

<400> 1159

Met	Trp	Ala	Ser	Gln	Val	Ser	Ser	Phe	Gln	Ala	Ser	Pro	Phe	Leu	Thr
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Leu	Trp	Met	Thr	Gly	Ala	Pro	Leu	Thr	Ala	Arg	Ile	Ala	Leu	Gly	Pro
		20						25					30		
Pro	Leu	Ala	Trp	Ile	Pro	Ala	Ala	Ser	Leu	Thr	Ser	Thr	Lys	Gly	Glu
		35					40					45			
Phe	Gly	Val	Glu	Asp	Asp	Arg	Pro	Ala	Arg	Gly	Pro	Pro	Pro	Pro	Lys
	50					55					60				
Ser	Glu	Glu	Ala	Ser	Trp	Ser	Glu	Ser	Gly	Val	Ser	Ser	Ser	Ser	Gly
65					70					75					80
Asp	Gly	Pro	Phe	Ala	Gly	Gly	Glu	Val	Asp	Lys	Arg	Leu	His	Gln	Leu
			85						90					95	
Lys	Thr	Gln	Leu	Ala	Thr	Leu	Thr	Ser	Ser	Leu	Ala	Thr	Val	Thr	Gln
			100					105					110		
Glu	Lys	Ser	Arg	Met	Glu	Ala	Ser	Tyr	Leu	Ala	Asp	Lys	Lys	Lys	Met
	115						120					125			
Lys	Gln	Asp	Leu	Glu	Asp	Ala	Ser	Asn	Lys	Ala	Glu	Glu	Glu	Arg	Ala
	130					135					140				
Arg	Leu	Glu	Gly	Glu	Leu	Lys	Gly	Leu	Gln	Glu	Gln	Ile	Ala	Glu	Thr
145					150					155					160
Lys	Ala	Arg	Leu	Ile	Thr	Gln	Gln	His	Asp	Arg	Ala	Gln	Glu	Gln	Ser
			165						170					175	
Asp	His	Ala	Leu	Met	Leu	Arg	Glu	Leu	Gln	Lys	Leu	Leu	Gln	Glu	Glu
		180						185					190		
Arg	Thr	Gln	Arg	Gln	Asp	Leu	Glu	Leu	Arg	Leu	Glu	Glu	Thr	Arg	Glu
	195					200						205			
Ala	Leu	Ala	Gly	Arg	Ala	Tyr	Ala	Ala	Glu	Gln	Met	Glu	Gly	Phe	Glu
	210					215					220				
Leu	Gln	Thr	Lys	Gln	Leu	Thr	Arg	Glu	Val	Glu	Glu	Leu	Lys	Ser	Glu
225					230					235					240
Leu	Gln	Ala	Ile	Arg	Asp	Glu	Lys	Asn	Gln	Pro	Asp	Pro	Arg	Leu	Gln
			245						250					255	
Glu	Leu	Gln	Glu	Glu	Ala	Ala	Arg	Leu	Lys	Ser	His	Phe	Gln	Ala	Gln
		260						265					270		
Leu	Gln	Gln	Glu	Met	Arg	Lys	Thr	Ala	Leu	Ala	Glu	Asp	Gln	Leu	Arg
	275						280					285			
Gln	Gln	Ser	Gln	Val	Glu	Glu	Gln	Arg	Val	Ala	Ala	Leu	Glu	Asn	Gln
	290					295					300				
Ile	Ser	Glu	Val	Ser	Glu	Leu	Leu	Gly	Thr	Tyr	Glu	Lys	Ala	Lys	Gln
305					310					315					320
Lys	Asp	Gln	Leu	Ala	Ile	Gln	Lys	Leu	Lys	Glu	Arg	Ile	Leu	Gln	Leu
			325						330					335	
Asp	Leu	Glu	Asn	Lys	Thr	Leu	Ala	Leu	Ala	Ala	Ser	Ser	Arg	Ser	Pro
		340						345					350		
Leu	Asp	Ser	His	Gly	Glu	Glu	Ser	Ser	Leu	Asp	Val	Asn	Val	Leu	Lys
	355						360					365			
Asp	Lys	Met	Glu	Lys	Leu	Lys	Arg	Leu	Leu	Gln	Val	Ala	Ala	Arg	Lys
	370					375					380				
Ser	Gln	Val	Thr	Leu	Asp	Val	Glu	Lys	Leu	Cys	Asp	Leu	Glu	Ile	Met
385					390					395					400
Pro	Ser	Ser	Glu	Ala	Ala	Asp	Gly	Glu	Lys	Ala	Thr	Ala	Leu	Tyr	Tyr
			405						410					415	
Gln	Gln	Glu	Leu	Lys	Gln	Leu	Lys	Glu	Glu	Phe	Glu	Arg	Tyr	Lys	Met
		420						425					430		
Arg	Ala	Gln	Val	Val	Leu	Lys	Ser	Lys	Asn	Thr	Lys	Asp	Gly	Asn	Leu
	435						440					445			
Gly	Lys	Glu	Leu	Glu	Ala	Ala	Gln	Glu	Gln	Leu	Ala	Glu	Leu	Lys	Glu
	450					455					460				
Lys	Tyr	Ile	Ser	Leu	Arg	Leu	Ser	Cys	Glu	Glu	Leu	Glu	His	Gln	His
465					470					475					480
Gln	Gln	Glu	Ala	Asp	Asp	Trp	Lys	Gln	Glu	Leu	Ala	Arg	Leu	Gln	Gln
			485						490					495	
Leu	His	Arg	Gln	Glu	Leu	Glu	Arg	Cys	Gln	Leu	Asp	Phe	Arg	Asp	Arg
			500					505					510		

Thr Leu Lys Leu Glu Glu Glu Leu His Lys Gln Arg Asp Arg Ala Leu
 515 520 525
 Ala Val Leu Thr Glu Lys Asp Leu Glu Leu Glu Gln Leu Arg Ser Val
 530 535 540
 Ala Leu Ala Ser Gly Leu Pro Gly Arg Arg Ser Pro Val Gly Gly Gly
 545 550 555 560
 Gly Pro Gly Asp Pro Ala Asp Thr Ser Ser Ser Asp Ser Leu Thr Gln
 565 570 575
 Ala Leu Gln Leu Ala Ala Ala Asn Glu Pro Thr Phe Phe Leu Tyr Ala
 580 585 590
 Glu Gln Leu Ala Arg Lys Glu Val Glu Ile Thr Ser Leu Arg Lys Gln
 595 600 605
 Lys His Arg Leu Glu Val Glu Val His Gln Leu Gln Asp Arg Leu Leu
 610 615 620
 Glu Glu Gly Glu Arg His Arg Glu Glu Val Ala Ala Leu Gln Ser His
 625 630 635 640
 Ile Glu Lys Asn Ile Arg Asp Gln Ser Arg Glu Gly Ala Asn Leu Glu
 645 650 655
 Tyr Leu Lys Asn Ile Ile Tyr Arg Phe Leu Thr Leu Pro Asp Ser Leu
 660 665 670
 Gly Arg Gln Gln Thr Leu Thr Ala Ile Leu Thr Ile Leu His Phe Ser
 675 680 685
 Pro Glu Glu Lys Gln Val Ile Met Arg Leu Pro Thr Ser Ala Ser Trp
 690 695 700
 Trp Pro Ser Gly Lys Arg *
 705 710

<210> 1160
 <211> 339
 <212> PRT
 <213> Homo sapiens

<400> 1160
 Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu Leu
 1 5 10 15
 Gly Leu His Leu Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly Trp Asn
 20 25 30
 Asp Pro Asp Arg Met Leu Leu Arg Asp Val Lys Ala Leu Thr Leu His
 35 40 45
 Tyr Asp Arg Tyr Thr Thr Ser Arg Arg Leu Asp Pro Ile Pro Gln Leu
 50 55 60
 Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys Val
 65 70 75 80
 Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly Tyr Asp Val Gln Trp Glu
 85 90 95
 Cys Lys Thr Asp Leu Asp Ile Ala Tyr Lys Phe Gly Lys Thr Val Val
 100 105 110
 Ser Cys Glu Gly Tyr Glu Ser Ser Glu Asp Gln Tyr Val Leu Arg Gly
 115 120 125
 Ser Cys Gly Leu Glu Tyr Asn Leu Asp Tyr Thr Glu Leu Gly Leu Gln
 130 135 140
 Lys Leu Lys Glu Ser Gly Lys Gln His Gly Phe Ala Ser Phe Ser Asp
 145 150 155 160
 Tyr Tyr Tyr Lys Trp Ser Ser Ala Asp Ser Cys Asn Met Ser Gly Leu
 165 170 175
 Ile Thr Ile Val Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys Leu
 180 185 190
 Phe Leu Ser Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser Glu Tyr Pro
 195 200 205
 Pro Phe Ser His Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro Pro
 210 215 220

Pro Pro Gly Phe Lys Ser Glu Phe Thr Gly Pro Gln Asn Thr Gly His
 225 230 235 240
 Gly Ala Thr Ser Gly Phe Gly Ser Ala Phe Thr Gly Gln Gln Gly Tyr
 245 250 255
 Glu Asn Ser Gly Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly Gly Ile
 260 265 270
 Leu Gly Tyr Leu Phe Gly Ser Asn Arg Ala Ala Thr Pro Phe Ser Asp
 275 280 285
 Ser Trp Tyr Tyr Pro Ser Tyr Pro Pro Ser Tyr Pro Gly Thr Trp Asn
 290 295 300
 Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly Ser Tyr Ser Val Cys
 305 310 315 320
 Ser Asn Ser Asp Thr Lys Thr Arg Thr Ala Ser Gly Tyr Gly Gly Thr
 325 330 335
 Arg Arg Arg
 339

<210> 1161
 <211> 367
 <212> PRT
 <213> Homo sapiens

<400> 1161
 Met Ile Arg Asn Trp Leu Thr Ile Phe Ile Leu Phe Pro Leu Lys Leu
 1 5 10 15
 Val Glu Lys Cys Glu Ser Ser Val Ser Leu Thr Val Pro Pro Val Val
 20 25 30
 Lys Leu Glu Asn Gly Ser Ser Thr Asn Val Ser Leu Thr Leu Arg Pro
 35 40 45
 Pro Leu Asn Ala Thr Leu Val Ile Thr Phe Glu Ile Thr Phe Arg Ser
 50 55 60
 Lys Asn Ile Thr Ile Leu Glu Leu Pro Asp Glu Val Val Val Pro Pro
 65 70 75 80
 Gly Val Thr Asn Ser Ser Phe Gln Val Thr Ser Gln Asn Val Gly Gln
 85 90 95
 Leu Thr Val Tyr Leu His Gly Asn His Ser Asn Gln Thr Gly Pro Arg
 100 105 110
 Ile Arg Phe Leu Val Ile Arg Ser Ser Ala Ile Ser Ile Ile Asn Gln
 115 120 125
 Val Ile Gly Trp Ile Tyr Phe Val Ala Trp Ser Ile Ser Phe Tyr Pro
 130 135 140
 Gln Val Ile Met Asn Trp Arg Arg Lys Ser Val Ile Gly Leu Ser Phe
 145 150 155 160
 Asp Phe Val Ala Leu Asn Leu Thr Gly Phe Val Ala Tyr Ser Val Phe
 165 170 175
 Asn Ile Gly Leu Leu Trp Val Pro Tyr Ile Lys Glu Gln Phe Leu Leu
 180 185 190
 Lys Tyr Pro Asn Gly Val Asn Pro Val Asn Ser Asn Asp Val Phe Phe
 195 200 205
 Ser Leu His Ala Val Val Leu Thr Leu Ile Ile Ile Val Gln Cys Cys
 210 215 220
 Leu Tyr Glu Arg Gly Gly Gln Arg Val Ser Trp Pro Ala Ile Gly Phe
 225 230 235 240
 Leu Val Leu Ala Trp Leu Phe Ala Phe Val Thr Met Ile Val Ala Ala
 245 250 255
 Val Gly Val Ile Thr Trp Leu Gln Phe Leu Phe Cys Phe Ser Tyr Ile
 260 265 270
 Lys Leu Ala Val Thr Leu Val Lys Tyr Phe Pro Gln Ala Tyr Met Asn
 275 280 285
 Phe Tyr Tyr Lys Ser Thr Glu Gly Trp Ser Ile Gly Asn Val Leu Leu
 290 295 300

Asp	Phe	Thr	Gly	Gly	Ser	Phe	Ser	Leu	Leu	Gln	Met	Phe	Leu	Gln	Ser
305					310					315					320
Tyr	Asn	Asn	Asp	Gln	Trp	Thr	Leu	Ile	Phe	Gly	Asp	Pro	Thr	Lys	Phe
				325					330					335	
Gly	Leu	Gly	Val	Phe	Ser	Ile	Val	Phe	Asp	Val	Val	Phe	Phe	Ile	Gln
			340					345					350		
His	Phe	Cys	Leu	Tyr	Arg	Lys	Arg	Pro	Gly	Tyr	Asp	Gln	Leu	Asn	
		355					360					365		367	

<210> 1162
 <211> 638
 <212> PRT
 <213> Homo sapiens

<400> 1162

Met	Leu	Gly	Lys	Gly	Val	Val	Gly	Gly	Gly	Gly	Gly	Thr	Lys	Ala	Pro
1				5					10					15	
Lys	Pro	Ser	Phe	Val	Ser	Tyr	Val	Arg	Pro	Glu	Glu	Ile	His	Thr	Asn
			20					25					30		
Glu	Lys	Glu	Val	Thr	Glu	Lys	Glu	Val	Thr	Leu	His	Leu	Leu	Pro	Gly
		35					40					45			
Glu	Gln	Leu	Leu	Cys	Glu	Ala	Ser	Thr	Val	Leu	Lys	Tyr	Val	Gln	Glu
	50					55					60				
Asp	Ser	Cys	Gln	His	Gly	Val	Tyr	Gly	Arg	Leu	Val	Cys	Thr	Asp	Phe
65					70				75						80
Lys	Ile	Ala	Phe	Leu	Gly	Asp	Asp	Glu	Ser	Ala	Leu	Asp	Asn	Asp	Glu
				85				90					95		
Thr	Gln	Phe	Lys	Asn	Lys	Val	Ile	Gly	Glu	Asn	Asp	Ile	Thr	Leu	His
			100					105					110		
Cys	Val	Asp	Gln	Ile	Tyr	Gly	Val	Phe	Asp	Glu	Lys	Lys	Lys	Thr	Leu
		115					120					125			
Phe	Gly	Gln	Leu	Lys	Lys	Tyr	Pro	Glu	Lys	Leu	Ile	Ile	His	Cys	Lys
	130					135					140				
Asp	Leu	Arg	Val	Phe	Gln	Phe	Cys	Leu	Arg	Tyr	Thr	Lys	Glu	Glu	Glu
145					150				155						160
Val	Lys	Arg	Ile	Val	Ser	Gly	Ile	Ile	His	His	Thr	Gln	Ala	Pro	Lys
				165					170						175
Leu	Leu	Lys	Arg	Leu	Phe	Leu	Phe	Ser	Tyr	Ala	Thr	Ala	Ala	Gln	Asn
			180					185					190		
Asn	Thr	Val	Thr	Asp	Pro	Lys	Asn	His	Thr	Val	Met	Phe	Asp	Thr	Leu
		195				200						205			
Lys	Asp	Trp	Cys	Trp	Glu	Leu	Glu	Arg	Thr	Lys	Gly	Asn	Met	Lys	Tyr
	210					215					220				
Lys	Ala	Val	Ser	Val	Asn	Glu	Gly	Tyr	Lys	Val	Cys	Glu	Arg	Leu	Pro
225					230					235					240
Ala	Tyr	Phe	Val	Val	Pro	Thr	Pro	Leu	Pro	Glu	Glu	Asn	Val	Gln	Arg
				245				250						255	
Phe	Gln	Gly	His	Gly	Ile	Pro	Ile	Trp	Cys	Trp	Ser	Cys	His	Asn	Gly
		260					265						270		
Ser	Ala	Leu	Leu	Lys	Met	Ser	Ala	Leu	Pro	Lys	Glu	Gln	Asp	Asp	Gly
		275					280					285			
Ile	Leu	Gln	Ile	Gln	Lys	Ser	Phe	Leu	Asp	Gly	Ile	Tyr	Lys	Thr	Ile
	290				295						300				
His	Arg	Pro	Pro	Tyr	Glu	Ile	Val	Lys	Thr	Glu	Asp	Leu	Ser	Ser	Asn
305					310					315					320
Phe	Leu	Ser	Leu	Gln	Glu	Ile	Gln	Thr	Ala	Tyr	Ser	Lys	Phe	Lys	Gln
				325					330					335	
Leu	Phe	Leu	Ile	Asp	Asn	Ser	Thr	Glu	Phe	Trp	Asp	Thr	Asp	Ile	Lys
			340					345					350		
Trp	Phe	Ser	Leu	Leu	Glu	Ser	Ser	Ser	Trp	Leu	Asp	Ile	Ile	Arg	Arg
		355					360					365			

Cys	Leu	Lys	Lys	Ala	Ile	Glu	Ile	Thr	Glu	Cys	Met	Glu	Ala	Gln	Asn
370						375				380					
Met	Asn	Val	Leu	Leu	Leu	Glu	Glu	Asn	Ala	Ser	Asp	Leu	Cys	Cys	Leu
385					390					395					400
Ile	Ser	Ser	Leu	Val	Gln	Leu	Met	Met	Asp	Pro	His	Cys	Arg	Thr	Arg
				405					410					415	
Ile	Gly	Phe	Gln	Ser	Leu	Ile	Gln	Lys	Glu	Trp	Val	Met	Gly	Gly	His
			420					425					430		
Cys	Phe	Leu	Asp	Arg	Cys	Asn	His	Leu	Arg	Gln	Asn	Asp	Lys	Glu	Glu
		435					440					445			
His	Gln	Arg	Gln	Leu	Ser	Leu	Pro	Leu	Thr	Gln	Ser	Lys	Ser	Ser	Pro
	450					455					460				
Lys	Arg	Gly	Phe	Phe	Arg	Glu	Glu	Thr	Asp	His	Leu	Ile	Lys	Asn	Leu
465					470					475					480
Leu	Gly	Lys	Arg	Ile	Ser	Lys	Leu	Ile	Asn	Ser	Ser	Asp	Glu	Leu	Gln
			485						490					495	
Asp	Asn	Phe	Arg	Glu	Phe	Tyr	Asp	Ser	Trp	His	Ser	Lys	Ser	Thr	Asp
			500				505					510			
Tyr	His	Gly	Leu	Leu	Leu	Pro	His	Ile	Glu	Gly	Pro	Glu	Ile	Lys	Val
	515					520						525			
Trp	Ala	Gln	Arg	Tyr	Leu	Arg	Trp	Ile	Pro	Glu	Ala	Gln	Ile	Leu	Gly
	530					535					540				
Gly	Gly	Gln	Val	Ala	Thr	Leu	Ser	Lys	Leu	Leu	Glu	Met	Met	Glu	Glu
545					550					555					560
Val	Gln	Ser	Leu	Gln	Glu	Lys	Ile	Asp	Glu	Arg	His	His	Ser	Gln	Gln
			565					570						575	
Ala	Pro	Gln	Ala	Glu	Ala	Pro	Cys	Leu	Leu	Arg	Asn	Ser	Ala	Arg	Leu
			580				585						590		
Ser	Ser	Leu	Phe	Pro	Phe	Ala	Leu	Leu	Gln	Arg	His	Ser	Ser	Lys	Pro
		595				600						605			
Val	Leu	Pro	Thr	Ser	Gly	Trp	Lys	Ala	Leu	Gly	Asp	Glu	Asp	Asp	Leu
	610				615					620					
Ala	Lys	Arg	Glu	Asp	Glu	Phe	Val	Asp	Leu	Gly	Asp	Val	*		
625					630					635		637			

<210> 1163

<211> 251

<212> PRT

<213> Homo sapiens

<400> 1163

Met	Ser	Asp	Ile	Gly	Asp	Trp	Phe	Arg	Ser	Ile	Pro	Ala	Ile	Thr	Arg
1				5					10					15	
Tyr	Trp	Phe	Ala	Ala	Thr	Val	Ala	Val	Pro	Leu	Val	Gly	Lys	Leu	Gly
			20					25					30		
Leu	Ile	Ser	Pro	Ala	Tyr	Leu	Phe	Leu	Trp	Pro	Glu	Ala	Phe	Leu	Tyr
		35					40					45			
Arg	Phe	Gln	Ile	Trp	Arg	Pro	Ile	Thr	Ala	Thr	Phe	Tyr	Phe	Pro	Val
	50				55					60					
Gly	Pro	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Val	Asn	Leu	Tyr	Phe	Leu	Tyr
65				70					75						80
Gln	Tyr	Ser	Thr	Arg	Leu	Glu	Thr	Gly	Ala	Phe	Asp	Gly	Arg	Pro	Ala
			85					90						95	
Asp	Tyr	Leu	Phe	Met	Leu	Leu	Phe	Asn	Trp	Ile	Cys	Ile	Val	Ile	Thr
		100					105						110		
Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	Leu	Met	Ile	Pro	Leu	Ile	Met	Ser
		115				120						125			
Val	Leu	Tyr	Val	Trp	Ala	Gln	Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe
	130				135					140					
Trp	Phe	Gly	Thr	Arg	Phe	Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu
145					150					155					160

Gly Phe Asn Tyr Ile Ile Gly Gly Ser Val Ile Asn Glu Leu Ile Gly
 165 170 175
 Asn Leu Val Gly His Leu Tyr Phe Phe Leu Met Phe Arg Tyr Pro Met
 180 185 190
 Asp Leu Gly Gly Arg Asn Phe Leu Ser Thr Pro Gln Phe Leu Tyr Arg
 195 200 205
 Trp Leu Pro Ser Arg Arg Gly Gly Val Ser Gly Phe Gly Val Pro Pro
 210 215 220
 Ala Ser Met Arg Arg Ala Ala Asp Gln Asn Gly Gly Gly Gly Arg His
 225 230 235 240
 Asn Trp Gly Gln Gly Phe Arg Leu Gly Asp Gln
 245 250 251

<210> 1164
 <211> 273
 <212> PRT
 <213> Homo sapiens

<400> 1164
 Met Ala Phe Leu Ala Gly Pro Arg Leu Leu Asp Trp Ala Ser Ser Pro
 1 5 10 15
 Pro His Leu Gln Phe Asn Lys Phe Val Leu Thr Gly Tyr Arg Pro Ala
 20 25 30
 Ser Ser Gly Ser Gly Cys Leu Arg Ser Leu Phe Tyr Leu His Asn Glu
 35 40 45
 Leu Gly Asn Ile Tyr Thr His Gly Leu Ala Leu Leu Gly Phe Leu Val
 50 55 60
 Leu Val Pro Met Thr Met Pro Trp Gly Gln Leu Gly Lys Asp Gly Trp
 65 70 75 80
 Leu Gly Gly Thr His Cys Val Ala Cys Leu Ala Pro Pro Ala Gly Ser
 85 90 95
 Val Leu Tyr His Leu Phe Met Cys His Gln Gly Gly Ser Ala Val Tyr
 100 105 110
 Ala Arg Leu Leu Ala Leu Asp Met Cys Gly Val Cys Leu Val Asn Thr
 115 120 125
 Leu Gly Ala Leu Pro Ile Ile His Cys Thr Leu Ala Cys Arg Pro Trp
 130 135 140
 Leu Arg Pro Ala Ala Leu Val Gly Tyr Thr Val Leu Ser Gly Val Ala
 145 150 155 160
 Gly Trp Arg Ala Leu Thr Ala Pro Ser Thr Ser Ala Arg Leu Arg Ala
 165 170 175
 Phe Gly Trp Gln Ala Ala Ala Arg Leu Leu Val Phe Gly Ala Arg Gly
 180 185 190
 Val Gly Leu Gly Ser Gly Ala Pro Gly Ser Leu Pro Cys Tyr Leu Arg
 195 200 205
 Met Asp Ala Leu Ala Leu Leu Gly Gly Leu Val Asn Val Ala Arg Leu
 210 215 220
 Pro Glu Arg Trp Gly Pro Gly Arg Phe Asp Tyr Trp Gly Asn Ser His
 225 230 235 240
 Gln Ile Met His Leu Leu Ser Val Gly Ser Ile Leu Gln Leu His Ala
 245 250 255
 Gly Val Val Pro Asp Leu Leu Trp Ala Ala His His Ala Cys Pro Arg
 260 265 270
 Asp
 273

<210> 1165
 <211> 798
 <212> PRT

<213> Homo sapiens

<400> 1165

Met	His	Glu	Ile	Tyr	Lys	Gly	Asn	Ile	Thr	Pro	Gln	Leu	Asn	Lys	Asn	1	5	10	15
Thr	Leu	Lys	Thr	Ser	Ala	Ala	Thr	Asp	Val	Trp	Ala	Val	Tyr	Phe	Ser	20	25	30	
Gln	Phe	Trp	Ile	Asp	Tyr	Glu	Gly	Met	Lys	Ser	Gly	Lys	Gly	Arg	Pro	35	40	45	
Ile	Ser	Phe	Val	Asp	Ser	Phe	Pro	Leu	Ser	Ile	Trp	Ile	Cys	Gln	Pro	50	55	60	
Thr	Arg	Tyr	Ala	Glu	Ser	Gln	Lys	Glu	Pro	Gln	Thr	Cys	Asn	Gln	Val	65	70	75	80
Ser	Leu	Asn	Thr	Ser	Gln	Ser	Glu	Ser	Ser	Asp	Leu	Ala	Gly	Arg	Leu	85	90	95	
Lys	Arg	Lys	Lys	Leu	Leu	Lys	Glu	Tyr	Tyr	Ser	Thr	Glu	Ser	Glu	Pro	100	105	110	
Leu	Thr	Asn	Gly	Gly	Gln	Lys	Pro	Ser	Ser	Ser	Asp	Thr	Phe	Phe	Arg	115	120	125	
Phe	Ser	Pro	Ser	Ser	Ser	Glu	Ala	Asp	Ile	His	Leu	Leu	Val	His	Val	130	135	140	
His	Lys	His	Val	Ser	Met	Gln	Ile	Asn	His	Tyr	Gln	Tyr	Leu	Leu	Leu	145	150	155	160
Leu	Phe	Leu	His	Glu	Ser	Leu	Ile	Leu	Leu	Ser	Glu	Asn	Leu	Arg	Lys	165	170	175	
Asp	Val	Glu	Ala	Val	Thr	Gly	Ser	Pro	Ala	Ser	Gln	Thr	Ser	Ile	Cys	180	185	190	
Ile	Gly	Ile	Leu	Leu	Arg	Ser	Ala	Glu	Leu	Ala	Leu	Leu	Leu	His	Pro	195	200	205	
Val	Asp	Gln	Ala	Asn	Thr	Leu	Lys	Ser	Pro	Val	Ser	Glu	Ser	Val	Ser	210	215	220	
Pro	Val	Val	Pro	Asp	Tyr	Leu	Pro	Thr	Glu	Asn	Gly	Asp	Phe	Leu	Ser	225	230	235	240
Ser	Lys	Arg	Lys	Gln	Ile	Ser	Arg	Asp	Ile	Asn	Arg	Ile	Arg	Ser	Val	245	250	255	
Thr	Val	Asn	His	Met	Ser	Asp	Asn	Arg	Ser	Met	Ser	Val	Asp	Leu	Ser	260	265	270	
His	Ile	Pro	Leu	Lys	Asp	Pro	Leu	Leu	Phe	Lys	Ser	Ala	Ser	Asp	Thr	275	280	285	
Asn	Leu	Gln	Lys	Gly	Ile	Ser	Phe	Met	Asp	Tyr	Leu	Ser	Asp	Lys	His	290	295	300	
Leu	Gly	Lys	Ile	Ser	Glu	Asp	Glu	Ser	Ser	Gly	Leu	Val	Tyr	Lys	Ser	305	310	315	320
Gly	Ser	Gly	Glu	Ile	Gly	Ser	Glu	Thr	Ser	Asp	Lys	Lys	Asp	Ser	Phe	325	330	335	
Tyr	Thr	Asp	Ser	Ser	Ser	Val	Leu	Asn	Tyr	Arg	Glu	Asp	Ser	Asn	Ile	340	345	350	
Leu	Ser	Phe	Asp	Ser	Asp	Gly	Asn	Gln	Asn	Ile	Leu	Ser	Ser	Thr	Leu	355	360	365	
Thr	Ser	Lys	Gly	Asn	Glu	Thr	Ile	Glu	Ser	Ile	Phe	Lys	Ala	Glu	Asp	370	375	380	
Leu	Leu	Pro	Glu	Ala	Ala	Ser	Leu	Ser	Glu	Asn	Leu	Asp	Ile	Ser	Lys	385	390	395	400
Glu	Glu	Thr	Pro	Pro	Val	Arg	Thr	Leu	Lys	Ser	Gln	Ser	Ser	Leu	Ser	405	410	415	
Gly	Lys	Pro	Lys	Glu	Arg	Cys	Pro	Pro	Asn	Leu	Ala	Pro	Leu	Cys	Val	420	425	430	
Ser	Tyr	Lys	Asn	Met	Lys	Arg	Ser	Ser	Ser	Gln	Met	Ser	Leu	Asp	Thr	435	440	445	
Ile	Ser	Leu	Asp	Ser	Met	Ile	Leu	Glu	Glu	Gln	Leu	Leu	Glu	Ser	Asp	450	455	460	
Gly	Ser	Asp	Ser	His	Met	Phe	Leu	Glu	Lys	Gly	Asn	Lys	Lys	Asn	Ser	465	470	475	480

Thr	Thr	Asn	Tyr	Arg	Gly	Thr	Ala	Glu	Ser	Val	Asn	Ala	Gly	Ala	Asn
				485					490					495	
Leu	Gln	Asn	Tyr	Gly	Glu	Thr	Ser	Pro	Asp	Ala	Ile	Ser	Thr	Asn	Ser
			500					505					510		
Glu	Gly	Ala	Gln	Glu	Asn	His	Asp	Asp	Leu	Met	Ser	Val	Val	Val	Phe
		515					520					525			
Lys	Ile	Thr	Gly	Val	Asn	Gly	Glu	Ile	Asp	Ile	Arg	Gly	Glu	Asp	Thr
	530					535					540				
Glu	Ile	Cys	Leu	Gln	Val	Asn	Gln	Val	Thr	Pro	Asp	Gln	Leu	Gly	Asn
545					550					555					560
Ile	Ser	Leu	Arg	His	Tyr	Leu	Cys	Asn	Arg	Pro	Val	Gly	Ser	Asp	Gln
				565					570					575	
Lys	Ala	Val	Ile	His	Ser	Lys	Ser	Ser	Pro	Glu	Ile	Ser	Leu	Arg	Phe
			580					585						590	
Glu	Ser	Gly	Pro	Gly	Ala	Val	Ile	His	Ser	Leu	Leu	Ala	Glu	Lys	Asn
		595					600					605			
Gly	Phe	Leu	Gln	Cys	His	Ile	Glu	Asn	Phe	Ser	Thr	Glu	Phe	Leu	Thr
	610					615					620				
Ser	Ser	Leu	Met	Asn	Ile	Gln	His	Phe	Leu	Glu	Asp	Glu	Thr	Val	Ala
625					630					635					640
Thr	Val	Met	Pro	Met	Lys	Ile	Gln	Val	Ser	Asn	Thr	Lys	Ile	Asn	Leu
				645					650					655	
Lys	Asp	Asp	Ser	Pro	Arg	Ser	Ser	Thr	Val	Ser	Leu	Glu	Pro	Ala	Pro
			660					665					670		
Val	Thr	Val	His	Ile	Asp	His	Leu	Val	Val	Glu	Arg	Ser	Asp	Asp	Gly
		675					680						685		
Ser	Phe	His	Ile	Arg	Asp	Ser	His	Met	Leu	Asn	Thr	Gly	Asn	Asp	Leu
	690					695					700				
Lys	Glu	Asn	Val	Lys	Ser	Asp	Ser	Val	Leu	Leu	Thr	Ser	Gly	Lys	Tyr
705					710					715					720
Asp	Leu	Lys	Lys	Gln	Arg	Ser	Val	Thr	Gln	Ala	Thr	Gln	Thr	Ser	Pro
				725					730					735	
Gly	Val	Pro	Trp	Pro	Ser	Gln	Ser	Ala	Asn	Phe	Pro	Glu	Phe	Ser	Phe
			740					745					750		
Asp	Phe	Thr	Arg	Glu	Gln	Leu	Met	Glu	Glu	Asn	Glu	Ser	Leu	Lys	Gln
		755					760					765			
Glu	Leu	Ala	Lys	Ala	Lys	Met	Ala	Leu	Ala	Glu	Ala	His	Leu	Glu	Lys
	770					775					780				
Asp	Ala	Leu	Leu	His	His	Ile	Lys	Lys	Met	Thr	Val	Glu	*		
785					790					795		797			

<210> 1166
 <211> 502
 <212> PRT
 <213> Homo sapiens

<400> 1166

Met	Asp	Tyr	Asp	Phe	Lys	Ala	Lys	Leu	Ala	Ala	Glu	Arg	Glu	Arg	Val
1				5					10					15	
Glu	Asp	Leu	Phe	Glu	Tyr	Glu	Gly	Cys	Lys	Val	Gly	Arg	Gly	Thr	Tyr
		20						25					30		
Gly	His	Val	Tyr	Lys	Ala	Arg	Arg	Lys	Asp	Gly	Lys	Asp	Glu	Lys	Glu
		35					40					45			
Tyr	Ala	Leu	Lys	Gln	Ile	Glu	Gly	Thr	Gly	Ile	Ser	Met	Ser	Ala	Cys
	50					55					60				
Arg	Glu	Ile	Ala	Leu	Leu	Arg	Glu	Leu	Lys	His	Pro	Asn	Val	Ile	Ala
	65				70					75					80
Leu	Gln	Lys	Val	Phe	Leu	Ser	His	Ser	Asp	Arg	Lys	Val	Trp	Leu	Leu
			85					90					95		
Phe	Asp	Tyr	Ala	Glu	His	Asp	Leu	Trp	His	Ile	Ile	Lys	Phe	His	Arg
			100					105					110		

Ala Ser Lys Ala Asn Lys Lys Pro Met Gln Leu Pro Arg Ser Met Val
 115 120 125
 Lys Ser Leu Leu Tyr Gln Ile Leu Asp Gly Ile His Tyr Leu His Ala
 130 135 140
 Asn Trp Val Leu His Arg Asp Leu Lys Pro Ala Asn Ile Leu Val Met
 145 150 155 160
 Gly Glu Gly Pro Glu Arg Gly Arg Val Lys Ile Ala Asp Met Gly Phe
 165 170 175
 Ala Arg Leu Phe Asn Ser Pro Leu Lys Pro Leu Ala Asp Leu Asp Pro
 180 185 190
 Val Val Val Thr Phe Trp Tyr Arg Ala Pro Glu Leu Leu Leu Gly Ala
 195 200 205
 Arg His Tyr Thr Lys Ala Ile Asp Ile Trp Ala Ile Gly Cys Ile Phe
 210 215 220
 Ala Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp
 225 230 235 240
 Ile Lys Thr Ser Asn Pro Phe His His Asp Gln Leu Asp Arg Ile Phe
 245 250 255
 Ser Val Met Gly Phe Pro Ala Asp Lys Asp Trp Glu Asp Ile Arg Lys
 260 265 270
 Met Pro Glu Tyr Pro Thr Leu Gln Lys Asp Phe Arg Arg Thr Thr Tyr
 275 280 285
 Ala Asn Ser Ser Leu Ile Lys Tyr Met Glu Lys His Lys Val Lys Pro
 290 295 300
 Asp Ser Lys Val Phe Leu Leu Leu Gln Lys Leu Leu Thr Met Asp Pro
 305 310 315 320
 Thr Lys Arg Ile Thr Ser Glu Gln Ala Leu Gln Asp Pro Tyr Phe Gln
 325 330 335
 Glu Asp Pro Leu Pro Thr Leu Asp Val Phe Ala Gly Cys Gln Ile Pro
 340 345 350
 Tyr Pro Lys Arg Glu Phe Leu Asn Glu Asp Asp Pro Glu Glu Lys Gly
 355 360 365
 Asp Lys Asn Gln Gln Gln Gln Gln Asn Gln His Gln Gln Pro Thr Ala
 370 375 380
 Pro Pro Gln Gln Ala Ala Ala Pro Pro Gln Ala Pro Pro Pro Gln Gln
 385 390 395 400
 Asn Ser Thr Gln Thr Asn Gly Thr Ala Gly Gly Ala Gly Ala Gly Val
 405 410 415
 Gly Gly Thr Gly Ala Gly Leu Gln His Ser Gln Asp Ser Ser Leu Asn
 420 425 430
 Gln Val Pro Pro Asn Lys Lys Pro Arg Leu Gly Pro Ser Gly Ala Asn
 435 440 445
 Ser Gly Gly Pro Val Met Pro Ser Asp Tyr Gln His Ser Ser Ser Arg
 450 455 460
 Leu Asn Tyr Gln Ser Ser Val Gln Gly Ser Ser Gln Ser Gln Ser Thr
 465 470 475 480
 Leu Gly Tyr Ser Ser Ser Ser Gln Gln Ser Ser Gln Tyr His Pro Ser
 485 490 495
 His Gln Ala His Arg Tyr
 500 502

<210> 1167

<211> 476

<212> PRT

<213> Homo sapiens

<400> 1167

Met Ala Glu Pro Pro Ser Pro Val His Cys Val Ala Ala Ala Ala Pro
 1 5 10 15
 Thr Ala Thr Val Ser Glu Lys Glu Pro Phe Gly Lys Leu Gln Leu Ser
 20 25 30

Ser	Arg	Asp	Pro	Pro	Gly	Ser	Leu	Ser	Ala	Lys	Lys	Val	Arg	Thr	Glu
		35					40					45			
Glu	Lys	Lys	Ala	Pro	Arg	Arg	Val	Asn	Gly	Glu	Gly	Gly	Ser	Gly	Gly
	50					55					60				
Asn	Ser	Arg	Gln	Leu	Gln	Pro	Pro	Ala	Ala	Pro	Ser	Pro	Gln	Ser	Tyr
65					70					75					80
Gly	Ser	Pro	Ala	Ser	Trp	Ser	Phe	Ala	Pro	Leu	Ser	Ala	Ala	Pro	Ser
				85				90						95	
Pro	Ser	Ser	Ser	Arg	Ser	Ser	Phe	Ser	Phe	Ser	Ala	Gly	Thr	Ala	Val
			100				105						110		
Pro	Ser	Ser	Ala	Ser	Ala	Ser	Leu	Ser	Gln	Pro	Val	Pro	Arg	Lys	Leu
	115						120					125			
Leu	Val	Pro	Pro	Thr	Leu	Leu	His	Ala	Gln	Pro	His	His	Leu	Leu	Leu
130						135					140				
Pro	Ala	Ala	Ala	Ala	Ala	Ala	Ser	Ala	Asn	Ala	Lys	Ser	Arg	Arg	Pro
145					150				155						160
Lys	Glu	Lys	Arg	Glu	Lys	Glu	Arg	Arg	Arg	His	Gly	Leu	Gly	Gly	Ala
				165				170						175	
Arg	Glu	Ala	Gly	Gly	Ala	Ser	Arg	Glu	Glu	Asn	Gly	Glu	Val	Lys	Pro
			180					185					190		
Leu	Pro	Arg	Asp	Lys	Ile	Lys	Asp	Lys	Ile	Lys	Glu	Arg	Asp	Lys	Glu
		195					200					205			
Lys	Glu	Arg	Glu	Lys	Lys	Lys	His	Lys	Val	Met	Asn	Glu	Ile	Lys	Lys
210						215					220				
Glu	Asn	Gly	Glu	Val	Lys	Ile	Leu	Leu	Lys	Ser	Gly	Lys	Glu	Lys	Pro
225					230					235					240
Lys	Thr	Asn	Ile	Glu	Asp	Leu	Gln	Ile	Lys	Lys	Val	Lys	Lys	Lys	Lys
				245				250						255	
Lys	Lys	Lys	His	Lys	Glu	Asn	Glu	Lys	Arg	Lys	Arg	Pro	Lys	Met	Tyr
			260					265					270		
Ser	Lys	Ser	Ile	Gln	Thr	Ile	Cys	Ser	Gly	Leu	Leu	Thr	Asp	Val	Glu
		275					280						285		
Asp	Gln	Ala	Ala	Lys	Gly	Ile	Leu	Asn	Asp	Asn	Ile	Lys	Asp	Tyr	Val
	290					295					300				
Gly	Lys	Asn	Leu	Asp	Thr	Lys	Asn	Tyr	Asp	Ser	Lys	Ile	Pro	Glu	Asn
305					310					315					320
Ser	Glu	Phe	Pro	Phe	Val	Ser	Leu	Lys	Glu	Pro	Arg	Val	Gln	Asn	Asn
				325					330					335	
Leu	Lys	Arg	Leu	Asp	Thr	Leu	Glu	Phe	Lys	Gln	Leu	Ile	His	Ile	Glu
			340					345					350		
His	Gln	Pro	Asn	Gly	Gly	Ala	Ser	Val	Ile	His	Ala	Tyr	Ser	Asn	Glu
		355					360					365			
Leu	Ser	His	Leu	Ser	Pro	Met	Glu	Met	Glu	Arg	Phe	Ala	Glu	Glu	Phe
	370					375					380				
Val	Gly	Leu	Val	Phe	Ser	Glu	Asn	Glu	Asn	Ser	Ala	Ala	Phe	Tyr	Val
385					390					395					400
Met	Gly	Ile	Val	His	Gly	Ala	Ala	Thr	Tyr	Leu	Pro	Asp	Phe	Leu	Asp
				405				410					415		
Tyr	Phe	Ser	Phe	Asn	Phe	Pro	Asn	Ser	Pro	Val	Lys	Met	Glu	Ile	Leu
			420					425					430		
Gly	Lys	Lys	Asp	Ile	Glu	Thr	Thr	Thr	Met	Ser	Asn	Phe	His	Ala	Gln
		435					440					445			
Ser	Leu	Thr	Val	Leu	Gln	Pro	Gly	Arg	Gln	Ser	Glu	Thr	Pro	Ser	Gln
	450					455					460				
Lys	Lys	Arg	Lys	Lys	Phe	Met	Ile	Met	Leu	Ser	Ser				
465					470					475	476				

<210> 1168

<211> 250

<212> PRT

<213> Homo sapiens

<400> 1168

Met	Ser	Ile	Phe	Thr	Pro	Thr	Asn	Gln	Ile	Arg	Leu	Thr	Asn	Val	Ala
1				5					10					15	
Val	Val	Arg	Met	Lys	Arg	Ala	Gly	Lys	Arg	Phe	Glu	Ile	Ala	Cys	Tyr
		20						25					30		
Lys	Asn	Lys	Val	Val	Gly	Trp	Arg	Ser	Gly	Val	Glu	Lys	Asp	Leu	Asp
		35				40						45			
Glu	Val	Leu	Gln	Thr	His	Ser	Val	Phe	Val	Asn	Val	Ser	Lys	Gly	Gln
	50					55				60					
Val	Ala	Lys	Lys	Glu	Asp	Leu	Ile	Ser	Ala	Phe	Gly	Thr	Asp	Asp	Gln
	65				70					75					80
Thr	Glu	Ile	Cys	Lys	Gln	Ile	Leu	Thr	Lys	Gly	Glu	Val	Gln	Val	Ser
				85					90					95	
Asp	Lys	Glu	Arg	His	Thr	Gln	Leu	Glu	Gln	Met	Phe	Arg	Asp	Ile	Ala
			100					105					110		
Thr	Ile	Val	Ala	Asp	Lys	Cys	Val	Asn	Pro	Glu	Thr	Lys	Arg	Pro	Tyr
		115					120					125			
Thr	Val	Ile	Leu	Ile	Glu	Arg	Ala	Met	Lys	Asp	Ile	His	Tyr	Ser	Val
	130					135					140				
Lys	Thr	Asn	Lys	Ser	Thr	Lys	Gln	Gln	Ala	Leu	Glu	Val	Ile	Lys	Gln
	145				150					155					160
Leu	Lys	Glu	Lys	Met	Lys	Ile	Glu	Arg	Ala	His	Met	Arg	Leu	Arg	Phe
				165					170					175	
Ile	Leu	Pro	Val	Asn	Glu	Gly	Lys	Lys	Leu	Lys	Glu	Lys	Leu	Lys	Pro
			180					185					190		
Leu	Ile	Lys	Val	Ile	Glu	Ser	Glu	Asp	Tyr	Gly	Gln	Gln	Leu	Glu	Ile
		195					200				205				
Val	Cys	Leu	Ile	Asp	Pro	Gly	Cys	Phe	Arg	Glu	Ile	Asp	Glu	Leu	Ile
	210					215					220				
Lys	Lys	Glu	Thr	Lys	Gly	Lys	Gly	Ser	Leu	Glu	Val	Leu	Asn	Leu	Lys
	225				230					235					240
Asp	Val	Glu	Glu	Gly	Asp	Glu	Lys	Phe	Glu						
				245					250						

<210> 1169

<211> 1048

<212> PRT

<213> Homo sapiens

<400> 1169

Met	Val	Glu	Gly	Lys	Arg	His	Val	Leu	His	Gly	Gly	Arg	Gln	Glu	Arg
1				5					10					15	
Met	Arg	Ala	Lys	Gln	Lys	Gly	Lys	Pro	Leu	Ile	Lys	Ser	Ser	Asp	Leu
		20						25					30		
Val	Arg	Leu	Ile	His	Tyr	His	His	Asn	Ser	Ser	Pro	Leu	His	Lys	Gln
		35					40					45			
Ser	Ser	Gly	Pro	Ser	Ser	Ser	Pro	Ala	Ala	Ala	Ala	Ala	Pro	Glu	Lys
	50					55					60				
Pro	Gly	Pro	Lys	Ala	Ala	Glu	Val	Gly	Asp	Asp	Phe	Leu	Gly	Asp	Phe
	65				70					75					80
Val	Val	Gly	Glu	Arg	Val	Trp	Val	Asn	Gly	Val	Lys	Pro	Gly	Val	Val
				85					90					95	
Gln	Tyr	Leu	Gly	Glu	Thr	Gln	Phe	Ala	Pro	Gly	Gln	Trp	Ala	Gly	Val
		100						105					110		
Val	Leu	Asp	Asp	Pro	Val	Gly	Lys	Asn	Asp	Gly	Ala	Val	Gly	Gly	Val
		115					120					125			
Arg	Tyr	Phe	Glu	Cys	Pro	Ala	Leu	Gln	Gly	Ile	Phe	Thr	Arg	Pro	Ser
	130					135					140				
Lys	Leu	Thr	Arg	Gln	Pro	Thr	Ala	Glu	Gly	Ser	Gly	Ser	Asp	Ala	His
	145				150					155					160

Ser	Val	Glu	Ser	Leu	Thr	Ala	Gln	Asn	Leu	Ser	Leu	His	Ser	Gly	Thr	165	170	175
Ala	Thr	Pro	Pro	Leu	Thr	Ser	Arg	Val	Ile	Pro	Leu	Arg	Glu	Ser	Val	180	185	190
Leu	Asn	Ser	Ser	Val	Lys	Thr	Gly	Asn	Glu	Ser	Gly	Ser	Asn	Leu	Ser	195	200	205
Asp	Ser	Gly	Ser	Val	Lys	Arg	Gly	Glu	Lys	Asp	Leu	Arg	Leu	Gly	Asp	210	215	220
Arg	Val	Leu	Val	Gly	Gly	Thr	Lys	Thr	Gly	Val	Val	Arg	Tyr	Val	Gly	225	230	235
Glu	Thr	Asp	Phe	Ala	Lys	Gly	Glu	Trp	Cys	Gly	Val	Glu	Leu	Asp	Glu	245	250	255
Pro	Leu	Gly	Lys	Asn	Asp	Gly	Ala	Val	Ala	Gly	Thr	Arg	Tyr	Phe	Gln	260	265	270
Cys	Pro	Pro	Lys	Phe	Gly	Leu	Phe	Ala	Pro	Ile	His	Lys	Val	Ile	Arg	275	280	285
Ile	Gly	Phe	Pro	Ser	Thr	Ser	Pro	Ala	Lys	Ala	Lys	Lys	Thr	Lys	Arg	290	295	300
Met	Ala	Met	Gly	Val	Ser	Ala	Leu	Thr	His	Ser	Pro	Ser	Ser	Ser	Ser	305	310	315
Ile	Ser	Ser	Val	Ser	Ser	Val	Ala	Ser	Ser	Val	Gly	Gly	Arg	Pro	Ser	325	330	335
Arg	Ser	Gly	Leu	Leu	Thr	Glu	Thr	Ser	Ser	Arg	Tyr	Ala	Arg	Lys	Ile	340	345	350
Ser	Gly	Thr	Thr	Ala	Leu	Gln	Glu	Ala	Leu	Lys	Glu	Lys	Gln	Gln	His	355	360	365
Ile	Glu	Gln	Leu	Leu	Ala	Glu	Arg	Asp	Leu	Glu	Arg	Ala	Glu	Val	Ala	370	375	380
Lys	Ala	Thr	Ser	His	Ile	Cys	Glu	Val	Glu	Lys	Glu	Ile	Ala	Leu	Leu	385	390	395
Lys	Ala	Gln	His	Glu	Gln	Tyr	Val	Ala	Glu	Ala	Glu	Glu	Lys	Leu	Gln	405	410	415
Arg	Ala	Arg	Leu	Leu	Val	Glu	Ser	Val	Arg	Lys	Glu	Lys	Val	Asp	Leu	420	425	430
Ser	Asn	Gln	Leu	Glu	Glu	Glu	Arg	Arg	Lys	Val	Glu	Asp	Leu	Gln	Phe	435	440	445
Arg	Val	Glu	Glu	Glu	Ser	Ile	Thr	Lys	Gly	Asp	Leu	Glu	Thr	Gln	Thr	450	455	460
Gln	Leu	Glu	His	Ala	Arg	Ile	Gly	Glu	Leu	Glu	Gln	Ser	Leu	Leu	Leu	465	470	475
Glu	Lys	Ala	Gln	Ala	Glu	Arg	Leu	Leu	Arg	Glu	Leu	Ala	Asp	Asn	Arg	485	490	495
Leu	Thr	Thr	Val	Ala	Glu	Lys	Ser	Arg	Val	Leu	Gln	Leu	Glu	Glu	Glu	500	505	510
Leu	Thr	Leu	Arg	Arg	Gly	Glu	Ile	Glu	Glu	Leu	Gln	Gln	Cys	Leu	Leu	515	520	525
His	Ser	Gly	Pro	Pro	Pro	Pro	Asp	His	Pro	Asp	Ala	Ala	Glu	Ile	Leu	530	535	540
Arg	Leu	Arg	Glu	Arg	Leu	Leu	Ser	Ala	Ser	Lys	Glu	His	Gln	Arg	Glu	545	550	555
Ser	Gly	Val	Leu	Arg	Asp	Lys	Tyr	Glu	Lys	Ala	Leu	Lys	Ala	Tyr	Gln	565	570	575
Ala	Glu	Val	Asp	Lys	Leu	Arg	Ala	Ala	Asn	Glu	Lys	Tyr	Ala	Gln	Glu	580	585	590
Val	Ala	Gly	Leu	Lys	Asp	Lys	Val	Gln	Gln	Ala	Thr	Ser	Glu	Asn	Met	595	600	605
Gly	Leu	Met	Asp	Asn	Trp	Lys	Ser	Lys	Leu	Asp	Ser	Leu	Ala	Ser	Asp	610	615	620
His	Gln	Lys	Ser	Leu	Glu	Asp	Leu	Lys	Ala	Thr	Leu	Asn	Ser	Gly	Pro	625	630	635
Gly	Ala	Gln	Gln	Lys	Glu	Ile	Gly	Glu	Leu	Lys	Ala	Val	Met	Glu	Gly	645	650	655
Ile	Lys	Met	Glu	His	Gln	Leu	Glu	Leu	Gly	Asn	Leu	Gln	Ala	Lys	His	660	665	670

Asp Leu Glu Thr Ala Met His Val Lys Glu Lys Glu Ala Leu Arg Glu
 675 680 685
 Lys Leu Gln Glu Ala Gln Glu Glu Leu Ala Gly Leu Gln Arg His Trp
 690 695 700
 Arg Ala Gln Leu Glu Val Gln Ala Ser Gln His Arg Leu Glu Leu Gln
 705 710 715 720
 Glu Ala Gln Asp Gln Arg Arg Asp Ala Glu Leu Arg Val His Glu Leu
 725 730 735
 Glu Lys Leu Asp Val Glu Tyr Arg Gly Gln Ala Gln Ala Ile Glu Phe
 740 745 750
 Leu Lys Glu Gln Ile Ser Leu Ala Glu Lys Lys Met Leu Asp Tyr Glu
 755 760 765
 Arg Leu Gln Arg Ala Glu Ala Gln Gly Lys Gln Glu Val Glu Ser Leu
 770 775 780
 Arg Glu Lys Leu Leu Val Ala Glu Asn Arg Leu Gln Ala Val Glu Ala
 785 790 795 800
 Leu Cys Ser Ser Gln His Thr His Met Ile Glu Ser Asn Asp Ile Ser
 805 810 815
 Glu Glu Thr Ile Arg Thr Lys Glu Thr Val Glu Gly Leu Gln Asp Lys
 820 825 830
 Leu Asn Lys Arg Asp Lys Glu Val Thr Ala Leu Thr Ser Gln Thr Glu
 835 840 845
 Met Leu Arg Ala Gln Val Ser Ala Leu Glu Ser Lys Cys Lys Ser Gly
 850 855 860
 Glu Lys Lys Val Asp Ala Leu Leu Lys Glu Lys Arg Arg Leu Glu Ala
 865 870 875 880
 Glu Leu Glu Thr Val Ser Arg Lys Thr His Asp Ala Ser Gly Gln Leu
 885 890 895
 Val Leu Ile Ser Gln Glu Leu Leu Arg Lys Glu Arg Ser Leu Asn Glu
 900 905 910
 Leu Arg Val Leu Leu Leu Glu Ala Asn Arg His Ser Pro Gly Pro Glu
 915 920 925
 Arg Asp Leu Ser Arg Glu Val His Lys Ala Glu Trp Arg Ile Lys Glu
 930 935 940
 Gln Lys Leu Lys Asp Asp Ile Arg Gly Leu Arg Glu Lys Leu Thr Gly
 945 950 955 960
 Leu Asp Lys Glu Lys Ser Leu Ser Asp Gln Arg Arg Tyr Ser Leu Ile
 965 970 975
 Asp Pro Ser Ser Ala Pro Glu Leu Leu Arg Leu Gln His Gln Leu Met
 980 985 990
 Ser Thr Glu Asp Ala Leu Arg Asp Ala Leu Asp Gln Ala Gln Gln Val
 995 1000 1005
 Glu Lys Leu Met Glu Ala Met Arg Ser Cys Pro Asp Lys Ala Gln Thr
 1010 1015 1020
 Ile Gly Asn Ser Gly Ser Ala Asn Gly Ile His Gln Gln Asp Lys Ala
 1025 1030 1035 1040
 Gln Lys Gln Glu Asp Lys His *
 1045 1047

<210> 1170

<211> 778

<212> PRT

<213> Homo sapiens

<400> 1170

Met Ser Gly Ser His Thr Pro Ala Cys Gly Pro Phe Ser Ala Leu Thr
 1 5 10 15
 Pro Ser Ile Trp Pro Gln Glu Ile Leu Ala Lys Tyr Thr Gln Lys Glu
 20 25 30
 Glu Ser Ala Glu Gln Pro Glu Phe Tyr Tyr Asp Glu Phe Gly Phe Arg
 35 40 45

Val	Tyr	Lys	Glu	Glu	Gly	Asp	Glu	Pro	Gly	Ser	Ser	Leu	Leu	Ala	Asn
50						55					60				
Ser	Pro	Leu	Met	Glu	Asp	Ala	Pro	Gln	Arg	Leu	Arg	Trp	Gln	Ala	His
65					70					75					80
Leu	Glu	Phe	Thr	His	Asn	His	Asp	Val	Gly	Asp	Leu	Thr	Trp	Asp	Lys
				85					90					95	
Ile	Ala	Val	Ser	Leu	Pro	Arg	Ser	Glu	Lys	Leu	Arg	Ser	Leu	Val	Leu
			100					105					110		
Ala	Gly	Ile	Pro	His	Gly	Met	Arg	Pro	Gln	Leu	Trp	Met	Arg	Leu	Ser
	115						120					125			
Gly	Ala	Leu	Gln	Lys	Lys	Arg	Asn	Ser	Glu	Leu	Ser	Tyr	Arg	Glu	Ile
130						135						140			
Val	Lys	Asn	Ser	Ser	Asn	Asp	Glu	Thr	Ile	Ala	Ala	Lys	Gln	Ile	Glu
145					150					155					160
Lys	Asp	Leu	Leu	Arg	Thr	Met	Pro	Ser	Asn	Ala	Cys	Phe	Ala	Ser	Met
				165					170					175	
Gly	Ser	Ile	Gly	Val	Pro	Arg	Leu	Arg	Arg	Val	Leu	Arg	Ala	Leu	Ala
			180					185					190		
Trp	Leu	Tyr	Pro	Glu	Ile	Gly	Tyr	Cys	Gln	Gly	Thr	Gly	Met	Val	Ala
	195						200					205			
Ala	Cys	Leu	Leu	Leu	Phe	Leu	Glu	Glu	Glu	Asp	Ala	Phe	Trp	Met	Met
210						215					220				
Ser	Ala	Ile	Ile	Glu	Asp	Leu	Leu	Pro	Ala	Ser	Tyr	Phe	Ser	Thr	Thr
225					230					235					240
Leu	Leu	Gly	Val	Gln	Thr	Asp	Gln	Arg	Val	Leu	Arg	His	Leu	Ile	Val
				245					250					255	
Gln	Tyr	Leu	Pro	Arg	Leu	Asp	Lys	Leu	Leu	Gln	Glu	His	Asp	Ile	Glu
			260					265					270		
Leu	Ser	Leu	Ile	Thr	Leu	His	Trp	Phe	Leu	Thr	Ala	Phe	Ala	Ser	Val
	275						280					285			
Val	Asp	Ile	Lys	Leu	Leu	Leu	Arg	Ile	Trp	Asp	Leu	Phe	Phe	Tyr	Glu
290						295				300					
Gly	Ser	Arg	Val	Leu	Phe	Gln	Leu	Thr	Leu	Gly	Met	Leu	His	Leu	Lys
305					310					315					320
Glu	Glu	Glu	Leu	Ile	Gln	Ser	Glu	Asn	Ser	Ala	Ser	Ile	Phe	Asn	Thr
				325					330					335	
Leu	Ser	Asp	Ile	Pro	Ser	Gln	Met	Glu	Asp	Ala	Glu	Leu	Leu	Leu	Gly
			340					345					350		
Val	Ala	Met	Arg	Leu	Ala	Gly	Ser	Leu	Thr	Asp	Val	Ala	Val	Glu	Thr
	355						360					365			
Gln	Arg	Arg	Lys	His	Leu	Ala	Tyr	Leu	Ile	Ala	Asp	Gln	Gly	Gln	Leu
370						375					380				
Leu	Gly	Ala	Gly	Thr	Leu	Thr	Asn	Leu	Ser	Gln	Val	Val	Arg	Arg	Arg
385					390					395					400
Thr	Gln	Arg	Arg	Lys	Ser	Thr	Ile	Thr	Ala	Leu	Leu	Phe	Gly	Glu	Asp
				405					410					415	
Asp	Leu	Glu	Ala	Leu	Lys	Ala	Lys	Asn	Ile	Lys	Gln	Thr	Glu	Leu	Val
			420					425					430		
Ala	Asp	Leu	Arg	Glu	Ala	Ile	Leu	Arg	Val	Ala	Arg	His	Phe	Gln	Cys
	435						440					445			
Thr	Asp	Pro	Lys	Asn	Cys	Ser	Val	Val	Ser	Arg	Gln	Leu	Pro	Gly	Leu
450						455					460				
Leu	Pro	Asn	Thr	Ala	Leu	Thr	Pro	Pro	Thr	Pro	Leu	Val	Gly	Leu	Cys
465					470					475					480
Ser	Leu	Trp	Gln	Glu	Leu	Thr	Pro	Asp	Tyr	Ser	Met	Glu	Ser	His	Gln
				485					490					495	
Arg	Asp	His	Glu	Asn	Tyr	Val	Ala	Cys	Ser	Arg	Ser	His	Arg	Arg	Arg
			500					505					510		
Ala	Lys	Ala	Leu	Leu	Asp	Phe	Glu	Arg	His	Asp	Asp	Asp	Glu	Leu	Gly
	515						520					525			
Phe	Arg	Lys	Asn	Asp	Ile	Ile	Thr	Ile	Val	Ser	Gln	Lys	Asp	Glu	His
530						535					540				
Cys	Trp	Val	Gly	Glu	Leu	Asn	Gly	Leu	Arg	Gly	Trp	Phe	Pro	Ala	Lys
545					550					555					560

Phe Val Glu Val Leu Asp Glu Arg Ser Lys Glu Tyr Ser Ile Ala Gly
 565 570 575
 Asp Asp Ser Val Thr Glu Gly Val Thr Asp Leu Val Arg Gly Thr Leu
 580 585 590
 Cys Pro Ala Leu Lys Ala Leu Phe Glu His Gly Leu Lys Lys Pro Ser
 595 600 605
 Leu Leu Gly Gly Ala Cys His Pro Trp Leu Phe Ile Glu Glu Ala Ala
 610 615 620
 Gly Arg Glu Val Glu Arg Asp Phe Ala Ser Val Tyr Ser Arg Leu Val
 625 630 635 640
 Leu Cys Lys Thr Phe Arg Leu Asp Glu Asp Gly Lys Val Leu Thr Pro
 645 650 655
 Glu Glu Leu Leu Tyr Arg Ala Val Gln Ser Val Asn Val Thr His Asp
 660 665 670
 Ala Val His Ala Gln Met Asp Val Lys Leu Arg Ser Leu Ile Cys Val
 675 680 685
 Gly Leu Asn Glu Gln Val Leu His Leu Trp Leu Glu Val Leu Cys Ser
 690 695 700
 Ser Leu Pro Thr Val Glu Lys Trp Tyr Gln Pro Trp Ser Phe Leu Arg
 705 710 715 720
 Ser Pro Gly Trp Val Gln Ile Lys Cys Glu Leu Arg Val Leu Cys Cys
 725 730 735
 Phe Ala Phe Ser Leu Ser Gln Asp Trp Glu Leu Pro Ala Lys Arg Glu
 740 745 750
 Ala Gln Gln Pro Leu Lys Glu Gly Val Arg Asp Met Leu Val Lys His
 755 760 765
 His Leu Phe Ser Trp Asp Val Asp Gly *
 770 775 777

<210> 1171
 <211> 750
 <212> PRT
 <213> Homo sapiens

<400> 1171
 Met Ser Gly Ser His Thr Pro Ala Cys Gly Pro Phe Ser Ala Leu Thr
 1 5 10 15
 Pro Ser Ile Trp Pro Gln Glu Ile Leu Ala Lys Tyr Thr Gln Lys Glu
 20 25 30
 Glu Ser Ala Glu Gln Pro Glu Phe Tyr Tyr Asp Glu Phe Gly Phe Arg
 35 40 45
 Val Tyr Lys Glu Glu Gly Asp Glu Pro Gly Ser Ser Leu Leu Ala Asn
 50 55 60
 Ser Pro Leu Met Glu Asp Ala Pro Gln Arg Leu Arg Trp Gln Ala His
 65 70 75 80
 Leu Glu Phe Thr His Asn His Asp Val Gly Asp Leu Thr Trp Asp Lys
 85 90 95
 Ile Ala Val Ser Leu Pro Arg Ser Glu Lys Leu Arg Ser Leu Val Leu
 100 105 110
 Ala Gly Ile Pro His Gly Met Arg Pro Gln Leu Trp Met Arg Leu Ser
 115 120 125
 Gly Ala Leu Gln Lys Lys Arg Asn Ser Glu Leu Ser Tyr Arg Glu Ile
 130 135 140
 Val Lys Asn Ser Ser Asn Asp Glu Thr Ile Ala Ala Lys Gln Ile Glu
 145 150 155 160
 Lys Asp Leu Leu Arg Thr Met Pro Ser Asn Ala Cys Phe Ala Ser Met
 165 170 175
 Gly Ser Ile Gly Val Pro Arg Leu Arg Arg Val Leu Arg Ala Leu Ala
 180 185 190
 Trp Leu Tyr Pro Glu Ile Gly Tyr Cys Gln Gly Thr Gly Met Val Ala
 195 200 205

Ala	Cys	Leu	Leu	Leu	Phe	Leu	Glu	Glu	Glu	Asp	Ala	Phe	Trp	Met	Met
210						215					220				
Ser	Ala	Ile	Ile	Glu	Asp	Leu	Leu	Pro	Ala	Ser	Tyr	Phe	Ser	Thr	Thr
225					230					235					240
Leu	Leu	Gly	Val	Gln	Thr	Asp	Gln	Arg	Val	Leu	Arg	His	Leu	Ile	Val
				245					250					255	
Gln	Tyr	Leu	Pro	Arg	Leu	Asp	Lys	Leu	Leu	Gln	Glu	His	Asp	Ile	Glu
			260					265					270		
Leu	Ser	Leu	Ile	Thr	Leu	His	Trp	Phe	Leu	Thr	Ala	Phe	Ala	Ser	Val
		275					280					285			
Val	Asp	Ile	Lys	Leu	Leu	Leu	Arg	Ile	Trp	Asp	Leu	Phe	Phe	Tyr	Glu
	290					295					300				
Gly	Ser	Arg	Val	Leu	Phe	Gln	Leu	Thr	Leu	Gly	Met	Leu	His	Leu	Lys
305					310					315					320
Glu	Glu	Glu	Leu	Ile	Gln	Ser	Glu	Asn	Ser	Ala	Ser	Ile	Phe	Asn	Thr
				325					330					335	
Leu	Ser	Asp	Ile	Pro	Ser	Gln	Met	Glu	Asp	Ala	Glu	Leu	Leu	Leu	Gly
			340					345					350		
Val	Ala	Met	Arg	Leu	Ala	Gly	Ser	Leu	Thr	Asp	Val	Ala	Val	Glu	Thr
		355					360					365			
Gln	Arg	Arg	Lys	His	Leu	Ala	Tyr	Leu	Ile	Ala	Asp	Gln	Gly	Gln	Leu
	370					375					380				
Leu	Gly	Ala	Gly	Thr	Leu	Thr	Asn	Leu	Ser	Gln	Val	Val	Arg	Arg	Arg
385					390					395					400
Thr	Gln	Arg	Arg	Lys	Ser	Thr	Ile	Thr	Ala	Leu	Leu	Phe	Gly	Glu	Asp
				405					410					415	
Asp	Leu	Glu	Ala	Leu	Lys	Ala	Lys	Asn	Ile	Lys	Gln	Thr	Glu	Leu	Val
			420					425					430		
Ala	Asp	Leu	Arg	Glu	Ala	Ile	Leu	Arg	Val	Ala	Arg	His	Phe	Gln	Cys
		435					440					445			
Thr	Asp	Pro	Lys	Asn	Cys	Ser	Val	Glu	Leu	Thr	Pro	Asp	Tyr	Ser	Met
	450					455					460				
Glu	Ser	His	Gln	Arg	Asp	His	Glu	Asn	Tyr	Val	Ala	Cys	Ser	Arg	Ser
465					470					475					480
His	Arg	Arg	Arg	Ala	Lys	Ala	Leu	Leu	Asp	Phe	Glu	Arg	His	Asp	Asp
				485					490					495	
Asp	Glu	Leu	Gly	Phe	Arg	Lys	Asn	Asp	Ile	Ile	Thr	Ile	Val	Ser	Gln
			500					505					510		
Lys	Asp	Glu	His	Cys	Trp	Val	Gly	Glu	Leu	Asn	Gly	Leu	Arg	Gly	Trp
		515					520					525			
Phe	Pro	Ala	Lys	Phe	Val	Glu	Val	Leu	Asp	Glu	Arg	Ser	Lys	Glu	Tyr
	530					535					540				
Ser	Ile	Ala	Gly	Asp	Asp	Ser	Val	Thr	Glu	Gly	Val	Thr	Asp	Leu	Val
545					550					555					560
Arg	Gly	Thr	Leu	Cys	Pro	Ala	Leu	Lys	Ala	Leu	Phe	Glu	His	Gly	Leu
				565					570					575	
Lys	Lys	Pro	Ser	Leu	Leu	Gly	Gly	Ala	Cys	His	Pro	Trp	Leu	Phe	Ile
			580					585					590		
Glu	Glu	Ala	Ala	Gly	Arg	Glu	Val	Glu	Arg	Asp	Phe	Ala	Ser	Val	Tyr
		595					600					605			
Ser	Arg	Leu	Val	Leu	Cys	Lys	Thr	Phe	Arg	Leu	Asp	Glu	Asp	Gly	Lys
	610					615					620				
Val	Leu	Thr	Pro	Glu	Glu	Leu	Leu	Tyr	Arg	Ala	Val	Gln	Ser	Val	Asn
625					630					635					640
Val	Thr	His	Asp	Ala	Val	His	Ala	Gln	Met	Asp	Val	Lys	Leu	Arg	Ser
				645					650					655	
Leu	Ile	Cys	Val	Gly	Leu	Asn	Glu	Gln	Val	Leu	His	Leu	Trp	Leu	Glu
			660					665					670		
Val	Leu	Cys	Ser	Ser	Leu	Pro	Thr	Val	Glu	Lys	Trp	Tyr	Gln	Pro	Trp
		675					680					685			
Ser	Phe	Leu	Arg	Ser	Pro	Gly	Trp	Val	Gln	Ile	Lys	Cys	Glu	Leu	Arg
	690					695					700				
Val	Leu	Cys	Cys	Phe	Ala	Phe	Ser	Leu	Ser	Gln	Asp	Trp	Glu	Leu	Pro
705					710					715					720

Ala	Lys	Arg	Glu	Ala	Gln	Gln	Pro	Leu	Lys	Glu	Gly	Val	Arg	Asp	Met
			725						730					735	
Leu	Val	Lys	His	His	Leu	Phe	Ser	Trp	Asp	Val	Asp	Gly	*		
			740					745				749			

<210> 1172
 <211> 1616
 <212> PRT
 <213> Homo sapiens

<400> 1172

Met	Glu	Gly	Ala	Glu	Pro	Arg	Ala	Arg	Pro	Glu	Arg	Leu	Ala	Glu	Ala
1				5					10					15	
Glu	Thr	Arg	Ala	Ala	Asp	Gly	Gly	Arg	Leu	Val	Glu	Val	Gln	Leu	Ser
			20					25					30		
Gly	Gly	Ala	Pro	Trp	Gly	Phe	Thr	Leu	Lys	Gly	Gly	Arg	Glu	His	Gly
			35				40					45			
Glu	Pro	Leu	Val	Ile	Thr	Lys	Ile	Glu	Glu	Gly	Ser	Lys	Ala	Ala	Ala
	50					55				60					
Val	Asp	Lys	Leu	Leu	Ala	Gly	Asp	Glu	Ile	Val	Gly	Ile	Asn	Asp	Ile
	65				70					75				80	
Gly	Leu	Ser	Gly	Phe	Arg	Gln	Glu	Ala	Ile	Cys	Leu	Val	Lys	Gly	Ser
				85					90					95	
His	Lys	Thr	Leu	Lys	Leu	Val	Val	Lys	Arg	Arg	Ser	Glu	Leu	Gly	Trp
			100					105					110		
Arg	Pro	His	Ser	Trp	His	Ala	Thr	Lys	Phe	Ser	Asp	Ser	His	Pro	Glu
		115				120						125			
Leu	Ala	Ala	Ser	Pro	Phe	Thr	Ser	Thr	Ser	Gly	Cys	Pro	Ser	Trp	Ser
	130					135					140				
Gly	Arg	His	His	Ala	Ser	Ser	Ser	Ser	His	Asp	Leu	Ser	Ser	Ser	Trp
	145				150					155					160
Glu	Gln	Thr	Asn	Leu	Gln	Arg	Thr	Leu	Asp	His	Phe	Ser	Ser	Leu	Gly
			165					170						175	
Ser	Val	Asp	Ser	Leu	Asp	His	Pro	Ser	Ser	Arg	Leu	Ser	Val	Ala	Lys
			180					185					190		
Ser	Asn	Ser	Ser	Ile	Asp	His	Leu	Gly	Ser	His	Ser	Lys	Arg	Asp	Ser
	195						200					205			
Ala	Tyr	Gly	Ser	Phe	Ser	Thr	Ser	Ser	Ser	Thr	Pro	Asp	His	Thr	Leu
	210					215					220				
Ser	Lys	Ala	Asp	Thr	Ser	Ser	Ala	Glu	Asn	Ile	Leu	Tyr	Thr	Val	Gly
	225				230				235						240
Leu	Trp	Glu	Ala	Pro	Arg	Gln	Gly	Gly	Arg	Gln	Ala	Gln	Ala	Ala	Gly
				245				250						255	
Asp	Pro	Gln	Gly	Ser	Glu	Glu	Lys	Leu	Ser	Cys	Phe	Pro	Pro	Arg	Val
			260					265					270		
Pro	Gly	Asp	Ser	Gly	Lys	Gly	Pro	Arg	Pro	Glu	Tyr	Asn	Ala	Glu	Pro
	275						280					285			
Lys	Leu	Ala	Ala	Pro	Gly	Arg	Ser	Asn	Phe	Gly	Pro	Val	Trp	Tyr	Val
	290					295					300				
Pro	Asp	Lys	Lys	Lys	Ala	Pro	Ser	Ser	Pro	Pro	Pro	Pro	Pro	Pro	Pro
	305				310					315					320
Leu	Arg	Ser	Asp	Ser	Phe	Ala	Ala	Thr	Lys	Ser	His	Glu	Lys	Ala	Gln
				325				330						335	
Gly	Pro	Val	Phe	Ser	Glu	Ala	Ala	Ala	Ala	Gln	His	Phe	Thr	Ala	Leu
			340					345					350		
Ala	Gln	Ala	Gln	Pro	Arg	Gly	Asp	Arg	Arg	Pro	Glu	Leu	Thr	Asp	Arg
		355				360						365			
Pro	Trp	Arg	Ser	Ala	His	Pro	Gly	Ser	Leu	Gly	Lys	Gly	Ser	Gly	Gly
	370					375				380					
Pro	Gly	Cys	Pro	Gln	Glu	Ala	His	Ala	Asp	Gly	Ser	Trp	Pro	Pro	Ser
	385				390					395					400

Lys	Asp	Gly	Ala	Ser	Ser	Arg	Leu	Gln	Ala	Ser	Leu	Ser	Ser	Ser	Asp
				405					410					415	
Val	Arg	Phe	Pro	Gln	Ser	Pro	His	Ser	Gly	Arg	His	Pro	Pro	Leu	Tyr
			420					425					430		
Ser	Asp	His	Ser	Pro	Leu	Cys	Ala	Asp	Ser	Leu	Gly	Gln	Glu	Pro	Gly
		435					440					445			
Ala	Ala	Ser	Phe	Gln	Asn	Asp	Ser	Pro	Pro	Gln	Val	Arg	Gly	Leu	Ser
		450				455					460				
Ser	Cys	Asp	Gln	Lys	Leu	Gly	Ser	Gly	Trp	Gln	Gly	Pro	Arg	Pro	Cys
465					470				475					480	
Val	Gln	Gly	Asp	Leu	Gln	Ala	Ala	Gln	Leu	Trp	Ala	Gly	Cys	Trp	Pro
			485					490						495	
Ser	Asp	Thr	Ala	Leu	Gly	Ala	Leu	Glu	Ser	Leu	Pro	Pro	Pro	Thr	Val
			500					505						510	
Gly	Gln	Ser	Pro	Arg	His	His	Leu	Pro	Gln	Pro	Glu	Gly	Pro	Pro	Asp
		515					520					525			
Ala	Arg	Glu	Thr	Gly	Arg	Cys	Tyr	Pro	Leu	Asp	Lys	Gly	Ala	Glu	Gly
		530				535					540				
Cys	Ser	Ala	Gly	Ala	Gln	Glu	Pro	Pro	Arg	Ala	Ser	Arg	Ala	Glu	Lys
545					550					555				560	
Ala	Ser	Gln	Arg	Leu	Ala	Ala	Ser	Ile	Thr	Trp	Ala	Asp	Gly	Glu	Ser
			565					570						575	
Ser	Arg	Ile	Cys	Pro	Gln	Glu	Thr	Pro	Leu	Leu	His	Ser	Leu	Thr	Gln
			580					585					590		
Glu	Gly	Lys	Arg	Arg	Pro	Glu	Ser	Ser	Pro	Glu	Asp	Ser	Ala	Thr	Arg
		595				600						605			
Pro	Pro	Pro	Phe	Asp	Ala	His	Val	Gly	Lys	Pro	Thr	Arg	Arg	Ser	Asp
		610				615						620			
Arg	Phe	Ala	Thr	Thr	Leu	Arg	Asn	Glu	Ile	Gln	Met	His	Arg	Ala	Lys
625					630					635				640	
Leu	Gln	Lys	Ser	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Gly	Glu	Ala
			645					650						655	
Glu	Asp	Gly	Thr	Gly	Arg	Trp	Arg	Ala	Gly	Leu	Gly	Gly	Gly	Thr	Gln
		660						665					670		
Glu	Gly	Pro	Leu	Ala	Gly	Thr	Tyr	Lys	Asp	His	Leu	Lys	Glu	Ala	Gln
		675					680					685			
Ala	Arg	Val	Leu	Arg	Ala	Thr	Ser	Phe	Lys	Arg	Arg	Asp	Leu	Asp	Pro
		690				695						700			
Asn	Pro	Gly	Asp	Leu	Tyr	Pro	Glu	Ser	Leu	Glu	His	Arg	Met	Gly	Asp
705					710					715				720	
Pro	Asp	Thr	Val	Pro	His	Phe	Trp	Glu	Ala	Gly	Leu	Ala	Gln	Pro	Pro
			725					730						735	
Ser	Ser	Thr	Ser	Gly	Gly	Pro	His	Pro	Pro	Arg	Ile	Gly	Gly	Arg	Arg
			740					745					750		
Arg	Phe	Thr	Ala	Glu	Gln	Lys	Leu	Lys	Ser	Tyr	Ser	Glu	Pro	Glu	Lys
		755					760					765			
Met	Asn	Glu	Val	Gly	Leu	Thr	Arg	Gly	Tyr	Ser	Pro	His	Gln	His	Pro
		770				775						780			
Arg	Thr	Ser	Glu	Asp	Thr	Val	Gly	Thr	Phe	Ala	Asp	Arg	Trp	Lys	Phe
785					790				795					800	
Phe	Glu	Glu	Thr	Ser	Lys	Pro	Val	Pro	Gln	Arg	Pro	Ala	Gln	Lys	Gln
			805						810					815	
Ala	Leu	His	Gly	Ile	Pro	Arg	Asp	Lys	Pro	Glu	Arg	Pro	Arg	Thr	Ala
			820					825					830		
Gly	Arg	Thr	Cys	Glu	Gly	Thr	Glu	Pro	Trp	Ser	Arg	Thr	Thr	Ser	Leu
		835					840					845			
Gly	Asp	Ser	Leu	Asn	Ala	His	Ser	Ala	Ala	Glu	Lys	Ala	Gly	Thr	Ser
		850				855						860			
Asp	Leu	Pro	Arg	Arg	Leu	Gly	Thr	Phe	Ala	Glu	Tyr	Gln	Ala	Ser	Trp
865					870					875				880	
Lys	Glu	Gln	Arg	Lys	Pro	Leu	Glu	Ala	Arg	Ser	Ser	Gly	Arg	Cys	His
			885					890						895	
Ser	Ala	Asp	Asp	Ile	Leu	Asp	Val	Ser	Leu	Asp	Pro	Gln	Glu	Arg	Pro
			900					905					910		

Gln	His	Val	His	Gly	Arg	Ser	Arg	Ser	Ser	Pro	Ser	Thr	Asp	His	Tyr	915	920	925
Lys	Gln	Glu	Ala	Ser	Val	Glu	Leu	Arg	Arg	Gln	Ala	Gly	Asp	Pro	Gly	930	935	940
Glu	Pro	Arg	Glu	Glu	Leu	Pro	Ser	Ala	Val	Arg	Ala	Glu	Glu	Gly	Gln	945	950	955
Ser	Thr	Pro	Arg	Gln	Ala	Asp	Ala	Gln	Cys	Arg	Glu	Gly	Ser	Pro	Gly	965	970	975
Ser	Gln	Gln	His	Pro	Pro	Ser	Gln	Lys	Ala	Pro	Asn	Pro	Pro	Thr	Phe	980	985	990
Ser	Glu	Leu	Ser	His	Cys	Arg	Gly	Ala	Pro	Glu	Leu	Pro	Arg	Glu	Gly	995	1000	1005
Arg	Gly	Arg	Ala	Gly	Thr	Leu	Pro	Arg	Asp	Tyr	Arg	Tyr	Ser	Glu	Glu	1010	1015	1020
Ser	Thr	Pro	Ala	Asp	Leu	Gly	Pro	Arg	Ala	Gln	Ser	Pro	Gly	Ser	Pro	1025	1030	1035
Leu	His	Ala	Arg	Gly	Gln	Asp	Ser	Trp	Pro	Val	Ser	Ser	Ala	Leu	Leu	1045	1050	1055
Ser	Lys	Arg	Pro	Ala	Pro	Gln	Arg	Pro	Pro	Pro	Pro	Lys	Arg	Glu	Pro	1060	1065	1070
Arg	Arg	Tyr	Arg	Ala	Thr	Asp	Gly	Ala	Pro	Ala	Asp	Ala	Pro	Val	Gly	1075	1080	1085
Val	Leu	Gly	Arg	Pro	Phe	Pro	Thr	Pro	Ser	Pro	Ala	Ser	Leu	Asp	Val	1090	1095	1100
Tyr	Val	Ala	Arg	Leu	Ser	Leu	Ser	His	Ser	Pro	Ser	Val	Phe	Ser	Ser	1105	1110	1115
Ala	Gln	Pro	Gln	Asp	Thr	Pro	Lys	Ala	Thr	Val	Cys	Glu	Arg	Gly	Ser	1125	1130	1135
Gln	His	Val	Gly	Gly	Asp	Ala	Ser	Arg	Pro	Leu	Pro	Glu	Ala	Leu	Leu	1140	1145	1150
Pro	Pro	Lys	Gln	Gln	His	Leu	Arg	Leu	Gln	Thr	Ala	Thr	Met	Glu	Thr	1155	1160	1165
Ser	Arg	Ser	Pro	Ser	Pro	Gln	Phe	Ala	Pro	Gln	Lys	Leu	Thr	Asp	Lys	1170	1175	1180
Pro	Pro	Leu	Leu	Ile	Gln	Asp	Glu	Asp	Ser	Thr	Arg	Ile	Glu	Arg	Val	1185	1190	1195
Met	Asp	Asn	Asn	Thr	Thr	Val	Lys	Met	Val	Pro	Ile	Lys	Ile	Val	His	1205	1210	1215
Ser	Glu	Ser	Gln	Pro	Glu	Lys	Glu	Ser	Arg	Gln	Ser	Leu	Ala	Cys	Pro	1220	1225	1230
Ala	Glu	Pro	Pro	Ala	Leu	Pro	His	Gly	Leu	Glu	Lys	Asp	Gln	Ile	Lys	1235	1240	1245
Thr	Leu	Ser	Thr	Ser	Glu	Gln	Phe	Tyr	Ser	Arg	Phe	Cys	Leu	Tyr	Thr	1250	1255	1260
Arg	Gln	Gly	Ala	Glu	Pro	Glu	Ala	Pro	His	Arg	Ala	Gln	Pro	Ala	Glu	1265	1270	1275
Pro	Gln	Pro	Leu	Gly	Thr	Gln	Val	Pro	Pro	Glu	Lys	Asp	Arg	Cys	Thr	1285	1290	1295
Ser	Pro	Pro	Gly	Leu	Ser	Tyr	Met	Lys	Ala	Lys	Glu	Lys	Thr	Val	Glu	1300	1305	1310
Asp	Leu	Lys	Ser	Glu	Glu	Leu	Ala	Arg	Glu	Ile	Val	Gly	Lys	Asp	Lys	1315	1320	1325
Ser	Leu	Ala	Asp	Ile	Leu	Asp	Pro	Ser	Val	Lys	Ile	Lys	Thr	Thr	Met	1330	1335	1340
Asp	Leu	Met	Glu	Gly	Ile	Phe	Pro	Lys	Asp	Glu	His	Leu	Leu	Glu	Glu	1345	1350	1355
Ala	Gln	Gln	Arg	Arg	Lys	Leu	Leu	Pro	Lys	Ile	Pro	Ser	Pro	Arg	Ser	1365	1370	1375
Thr	Glu	Glu	Arg	Lys	Glu	Glu	Pro	Ser	Val	Pro	Ala	Ala	Val	Ser	Leu	1380	1385	1390
Ala	Thr	Asn	Ser	Thr	Tyr	Tyr	Ser	Thr	Ser	Ala	Pro	Lys	Ala	Glu	Leu	1395	1400	1405
Leu	Ile	Lys	Met	Lys	Asp	Leu	Gln	Glu	Gln	Gln	Glu	His	Glu	Glu	Asp	1410	1415	1420

Ser Gly Ser Asp Leu Asp His Asp Leu Ser Val Lys Lys Gln Glu Leu
 1425 1430 1435 1440
 Ile Glu Ser Ile Ser Arg Lys Leu Gln Val Leu Arg Glu Ala Arg Glu
 1445 1450 1455
 Ser Leu Leu Glu Asp Val Gln Ala Asn Thr Val Leu Gly Ala Glu Val
 1460 1465 1470
 Glu Ala Ile Val Lys Gly Val Cys Lys Pro Ser Glu Phe Asp Lys Phe
 1475 1480 1485
 Arg Met Phe Ile Gly Asp Leu Asp Lys Val Val Asn Leu Leu Leu Ser
 1490 1495 1500
 Leu Ser Gly Arg Leu Ala Arg Val Glu Asn Ala Leu Asn Asn Leu Asp
 1505 1510 1515 1520
 Asp Gly Ala Ser Pro Gly Asp Arg Gln Ser Leu Leu Glu Lys Gln Arg
 1525 1530 1535
 Val Leu Ile Gln Gln His Glu Asp Ala Lys Glu Leu Lys Glu Asn Leu
 1540 1545 1550
 Asp Arg Arg Glu Arg Ile Val Phe Asp Ile Leu Ala Asn Tyr Leu Ser
 1555 1560 1565
 Glu Glu Ser Leu Ala Asp Tyr Glu His Phe Val Lys Met Lys Ser Ala
 1570 1575 1580
 Leu Ile Ile Glu Gln Arg Glu Leu Glu Asp Lys Ile His Leu Gly Glu
 1585 1590 1595 1600
 Glu Gln Leu Lys Cys Leu Leu Asp Ser Leu Gln Pro Glu Arg Gly Lys
 1605 1610 1615 1616

<210> 1173

<211> 593

<212> PRT

<213> Homo sapiens

<400> 1173

Met Glu Thr Pro Pro Leu Pro Pro Ala Cys Thr Lys Gln Gly His Gln
 1 5 10 15
 Lys Pro Leu Asp Ser Lys Asp Asp Asn Thr Glu Lys His Cys Pro Val
 20 25 30
 Thr Val Asn Pro Trp His Met Lys Lys Ala Phe Lys Val Met Asn Glu
 35 40 45
 Leu Arg Ser Gln Asn Leu Leu Cys Asp Val Thr Ile Val Ala Glu Asp
 50 55 60
 Met Glu Ile Ser Ala His Arg Val Val Leu Ala Ala Cys Ser Pro Tyr
 65 70 75 80
 Phe His Ala Met Phe Thr Gly Glu Met Ser Glu Ser Arg Ala Lys Arg
 85 90 95
 Val Arg Ile Lys Glu Val Asp Gly Trp Thr Leu Arg Met Leu Ile Asp
 100 105 110
 Tyr Val Tyr Thr Ala Glu Ile Gln Val Thr Glu Glu Asn Val Gln Val
 115 120 125
 Leu Leu Pro Ala Ala Gly Leu Leu Gln Leu Gln Asp Val Lys Lys Thr
 130 135 140
 Cys Cys Glu Phe Leu Glu Ser Gln Leu His Pro Val Asn Cys Leu Gly
 145 150 155 160
 Ile Arg Ala Phe Ala Asp Met His Ala Cys Thr Asp Leu Leu Asn Lys
 165 170 175
 Ala Asn Thr Tyr Ala Glu Gln His Phe Ala Asp Val Val Leu Ser Glu
 180 185 190
 Glu Phe Leu Asn Leu Gly Ile Glu Gln Val Cys Ser Leu Ile Ser Ser
 195 200 205
 Asp Lys Leu Thr Ile Ser Ser Glu Glu Lys Val Phe Glu Ala Val Ile
 210 215 220

Ala Trp Val Asn His Asp Lys Asp Val Arg Gln Glu Phe Met Ala Arg
 225 230 235 240
 Leu Met Glu His Val Arg Leu Pro Leu Leu Pro Arg Glu Tyr Leu Val
 245 250 255
 Gln Arg Val Glu Glu Glu Ala Leu Val Lys Asn Ser Ser Ala Cys Lys
 260 265 270
 Asn Tyr Leu Ile Glu Ala Met Lys Tyr His Leu Leu Pro Thr Glu Gln
 275 280 285
 Arg Ile Leu Met Lys Ser Val Arg Thr Arg Leu Arg Thr Pro Met Asn
 290 295 300
 Leu Pro Lys Leu Met Val Val Val Gly Gly Gln Ala Pro Lys Ala Ile
 305 310 315 320
 Arg Ser Val Glu Cys Tyr Asp Phe Lys Glu Gln Arg Trp His Gln Val
 325 330 335
 Ala Glu Leu Pro Ser Arg Arg Cys Arg Ala Gly Met Val Tyr Met Ala
 340 345 350
 Gly Leu Val Phe Ala Val Gly Gly Phe Asn Gly Ser Leu Arg Val Arg
 355 360 365
 Thr Val Asp Ser Tyr Asp Pro Val Lys Asp Gln Trp Thr Ser Val Ala
 370 375 380
 Asn Met Arg Asp Arg Arg Ser Thr Leu Gly Ala Ala Val Leu Asn Gly
 385 390 395 400
 Leu Leu Tyr Ala Val Gly Gly Phe Asp Gly Ser Thr Gly Leu Ser Ser
 405 410 415
 Val Glu Ala Tyr Asn Ile Lys Ser Asn Glu Trp Phe His Val Ala Pro
 420 425 430
 Met Asn Thr Arg Arg Ser Ser Val Gly Val Gly Val Val Gly Gly Leu
 435 440 445
 Leu Tyr Ala Val Gly Gly Tyr Asp Gly Ala Ser Arg Gln Tyr Leu Ser
 450 455 460
 Thr Val Glu Cys Tyr Asn Ala Thr Thr Asn Glu Trp Thr Tyr Ile Ala
 465 470 475 480
 Glu Met Ser Thr Arg Arg Ser Gly Ala Gly Val Gly Val Leu Asn Asn
 485 490 495
 Leu Leu Tyr Ala Val Gly Gly His Asp Gly Pro Leu Val Arg Lys Ser
 500 505 510
 Val Glu Val Tyr Asp Pro Thr Thr Asn Ala Trp Arg Gln Val Ala Asp
 515 520 525
 Met Asn Met Cys Arg Arg Asn Ala Gly Val Cys Ala Val Asn Gly Leu
 530 535 540
 Leu Tyr Val Val Gly Gly Asp Asp Gly Ser Cys Asn Leu Ala Ser Val
 545 550 555 560
 Glu Tyr Tyr Asn Pro Thr Thr Asp Lys Trp Thr Val Val Ser Ser Cys
 565 570 575
 Met Ser Thr Gly Arg Ser Tyr Ala Gly Val Thr Val Ile Asp Lys Pro
 580 585 590
 Leu
 593

<210> 1174
 <211> 285
 <212> PRT
 <213> Homo sapiens

<400> 1174
 Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1 5 10 15
 Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20 25 30
 Glu Asp Arg Ser Lys Gln Leu Glu Glu Asp Ile Ala Ala Lys Glu Lys
 35 40 45

Leu	Leu	Arg	Val	Ser	Glu	Asp	Glu	Arg	Asp	Lys	Tyr	Ser	Glu	Ala	Leu
50					55					60					
Lys	Asp	Ala	Glu	Asp	Ser	Leu	Leu	Ala	Ala	Glu	Glu	Ala	Ala	Ala	Lys
65				70						75					80
Ala	Glu	Ala	Asp	Val	Ala	Ser	Leu	Asn	Arg	Arg	Ile	Gln	Leu	Val	Glu
			85						90					95	
Glu	Glu	Leu	Asp	Arg	Ala	Gln	Glu	Arg	Leu	Ala	Thr	Ala	Leu	Gln	Lys
			100					105					110		
Leu	Glu	Glu	Ala	Glu	Lys	Ala	Ala	Asp	Glu	Ser	Glu	Arg	Gly	Met	Lys
			115					120				125			
Val	Ile	Glu	Ser	Arg	Ala	Gln	Lys	Asp	Glu	Glu	Lys	Met	Glu	Ile	Gln
130						135						140			
Glu	Ile	Gln	Leu	Lys	Glu	Ala	Lys	His	Ile	Ala	Glu	Asp	Ala	Asp	Arg
145				150						155					160
Lys	Tyr	Glu	Glu	Val	Ala	Arg	Lys	Leu	Val	Ile	Ile	Glu	Ser	Asp	Leu
				165					170					175	
Glu	Arg	Ala	Glu	Glu	Arg	Ala	Glu	Leu	Ser	Glu	Gly	Lys	Cys	Ala	Glu
			180					185					190		
Leu	Glu	Glu	Glu	Leu	Lys	Thr	Val	Thr	Asn	Asn	Leu	Lys	Ser	Leu	Glu
			195				200						205		
Ala	Gln	Ala	Glu	Lys	Tyr	Ser	Gln	Lys	Glu	Asp	Arg	Tyr	Glu	Glu	Glu
210						215					220				
Ile	Lys	Val	Leu	Ser	Asp	Lys	Leu	Lys	Glu	Ala	Glu	Thr	Arg	Ala	Glu
225					230					235					240
Phe	Ala	Glu	Arg	Ser	Val	Thr	Lys	Leu	Glu	Lys	Ser	Ile	Asp	Asp	Leu
				245					250					255	
Glu	Glu	Lys	Val	Ala	His	Ala	Lys	Glu	Glu	Asn	Leu	Ser	Met	His	Gln
			260					265					270		
Met	Leu	Asp	Gln	Thr	Leu	Leu	Glu	Leu	Asn	Asn	Met	*			
		275					280				284				

<210> 1175

<211> 207

<212> PRT

<213> Homo sapiens

<400> 1175

Met	Glu	Glu	Ser	Lys	Leu	Lys	Asn	Asp	Asp	Arg	Lys	Thr	Pro	Val	Asn
1				5					10					15	
Trp	Lys	Asp	Ser	Arg	Gly	Thr	Arg	Val	Ala	Val	Ser	Ser	Pro	Met	Ser
			20					25					30		
Gln	His	Gln	Ser	Tyr	Ile	Gln	Tyr	Leu	His	Ala	Tyr	Pro	Tyr	Pro	Gln
		35					40					45			
Met	Tyr	Asp	Pro	Ser	His	Pro	Ala	Tyr	Arg	Ala	Val	Ser	Pro	Val	Leu
50					55						60				
Met	His	Ser	Tyr	Pro	Gly	Ala	Tyr	Leu	Ser	Pro	Gly	Phe	His	Tyr	Pro
65					70					75					80
Val	Tyr	Gly	Lys	Met	Ser	Gly	Arg	Glu	Glu	Thr	Glu	Lys	Val	Asn	Thr
			85						90					95	
Ser	Pro	Ser	Val	Asn	Thr	Lys	Thr	Thr	Thr	Glu	Ser	Lys	Ala	Leu	Asp
			100					105					110		
Leu	Leu	Gln	Gln	His	Ala	Asn	Gln	Tyr	Arg	Ser	Lys	Ser	Pro	Ala	Pro
		115					120					125			
Val	Glu	Lys	Ala	Thr	Ala	Glu	Arg	Glu	Arg	Glu	Ala	Glu	Arg	Glu	Arg
130						135						140			
Asp	Arg	His	Ser	Pro	Phe	Gly	Gln	Arg	His	Leu	His	Thr	His	His	His
145					150					155					160
Thr	His	Val	Gly	Met	Gly	Tyr	Pro	Leu	Ile	Pro	Gly	Gln	Tyr	Asp	Pro
				165					170				175		
Phe	Gln	Gly	Leu	Thr	Ser	Ala	Ala	Leu	Val	Ala	Ser	Gln	Gln	Val	Ala
			180					185					190		

Ala Gln Ala Ser Ala Ser Gly Met Phe Pro Gly Gln Arg Arg Glu
 195 200 205 207

<210> 1176
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 1176
 Met Val Lys Gly Phe Arg Asn Trp Leu Lys Pro Ser Ser Leu Ser Thr
 1 5 10 15
 Leu Pro Leu Gln Tyr Gly Ile Leu Phe Pro Lys Leu Leu Ala Trp Leu
 20 25 30
 Val His Leu His Phe Gly His Phe Ser Ser Ala Val Ile Ser Val Thr
 35 40 45
 Ser Phe Tyr Leu Ser Met Asn Leu Asp Gly Ser Ala Gln Asp Pro Glu
 50 55 60
 Lys Arg Glu Tyr Ser Ser Val Cys Val Gly Arg Glu Asp Asp Ile Lys
 65 70 75 80
 Lys Ser Glu Arg Met Thr Ala Val Val His Asp Arg Glu Val Val Ile
 85 90 95
 Phe Tyr His Lys Gly Glu Tyr His Ala Met Asp Ile Arg Cys Tyr His
 100 105 110
 Ser Gly Gly Pro Leu His Leu Gly Asp Ile Glu Asp Phe Asp Gly Arg
 115 120 125
 Pro Cys Ile Val Cys Pro Trp His Lys Tyr Lys Ile Thr Leu Ala Thr
 130 135 140
 Gly Glu Gly Leu Tyr Gln Ser Ile Asn Pro Lys Asp Pro Ser Ala Lys
 145 150 155 160
 Pro Lys Trp Cys Ser Lys Gly Ile Lys Gln Arg Ile His Thr Val Thr
 165 170 175
 Val Asp Asn Gly Asn Ile Tyr Val Thr Leu Ser Asn Glu Pro Phe Lys
 180 185 190
 Cys Asp Ser Asp Phe Tyr Ala Thr Gly Asp Phe Lys Val Ile Lys Ser
 195 200 205
 Ser Ser *
 210

<210> 1177
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 1177
 Met Ser Cys Gln Gln Asn Gln Gln Gln Cys Gln Pro Pro Pro Lys Cys
 1 5 10 15
 Pro Ser Pro Lys Cys Pro Pro Lys Ser Pro Val Gln Cys Leu Pro Pro
 20 25 30
 Ala Ser Ser Gly Cys Ala Pro Ser Ser Gly Gly Cys Gly Pro Ser Ser
 35 40 45
 Glu Gly Gly Cys Phe Leu Asn His His Arg Arg His His Arg Cys Arg
 50 55 60
 Arg Gln Arg Pro Asn Ser Cys Asp Arg Gly Ser Gly Gln Gln Gly Gly
 65 70 75 80
 Gly Ser Gly Cys Gly His Gly Ser Gly Gly Cys Cys
 85 90 92

<210> 1178
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 1178
 Met Leu Gly Asp Pro Pro Ala Ser Pro Leu Thr Arg Asn Arg Thr Gly
 1 5 10 15
 Ala Ala Ala Ser Arg Leu Pro Thr Cys Leu Gln Gln Trp Pro Arg Gly
 20 25 30
 Ala Leu Arg Lys Arg Leu Tyr Lys Gly Leu Ser Pro Ala Leu Pro Ser
 35 40 45
 Arg Glu Glu Asn Arg Arg Arg Ala Gln Glu Glu Thr Val Pro Ala Gly
 50 55 60
 Gly Arg Ser Cys Arg Ser Gly Gly Leu Leu Gly Ala Gly Leu Gly Gly
 65 70 75 80
 Asp Arg Trp Arg Gly Gly Ala Trp Gly Ser Glu Gly Trp Ala Leu Glu
 85 90 95
 Ile Arg Gly Ser Thr Leu Leu Arg Cys Leu Asp Ser Gly Phe Arg Pro
 100 105 110
 Gly Ala Ser Arg Gly Leu Val Gly Ser Trp Ala Ala Met Glu Ser Thr
 115 120 125
 Leu Gly Ala Gly Ile Val Ile Ala Glu Ala Leu Gln Asn Gln Leu Ala
 130 135 140
 Trp Leu Glu Asn Val Trp Leu Trp Ile Thr Phe Leu Gly Asp Pro Lys
 145 150 155 160
 Ile Leu Phe Leu Phe Tyr Phe Pro Ala Ala Tyr Tyr Ala Ser Arg Arg
 165 170 175
 Val Gly Ile Ala Val Leu Trp Ile Ser Leu Ile Thr Glu Trp Leu Asn
 180 185 190
 Leu Ile Phe Lys Cys Arg Trp Val Arg Val Met Pro Ser Leu Ala Tyr
 195 200 205
 Cys Thr Phe Leu Leu Ala Val Gly Leu Ser Arg Ile Phe Ile Leu Ala
 210 215 220
 His Phe Pro His Gln Val Leu Ala Gly Leu Ile Thr Gly Ala Val Leu
 225 230 235 240
 Gly Trp Leu Met Thr Pro Arg Val Pro Met Glu Arg Glu Leu Ser Phe
 245 250 255
 Tyr Gly Leu Thr Ala Leu Ala Leu Met Leu Gly Thr Ser Leu Ile Tyr
 260 265 270
 Trp Thr Leu Phe Thr Leu Gly Leu Asp Leu Ser Trp Ser Ile Ser Leu
 275 280 285
 Ala Phe Lys Trp Cys Glu Arg Pro Glu Trp Ile His Val Asp Ser Arg
 290 295 300
 Pro Phe Ala Ser Leu Ser Arg Asp Ser Gly Ala Ala Leu Gly Leu Gly
 305 310 315 320
 Ile Ala Leu His Ser Pro Cys Tyr Ala Gln Val Arg Arg Ala Gln Leu
 325 330 335
 Gly Asn Gly Gln Lys Ile Ala Cys Leu Val Leu Ala Met Gly Leu Leu
 340 345 350
 Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln Ile Ser Leu Phe Tyr
 355 360 365
 Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro Cys Leu Val Leu Ala
 370 375 380
 Leu Val Pro Trp Ala Val His Met Phe Ser Ala Gln Glu Ala Pro Pro
 385 390 395 400
 Ile His Ser Ser *

<210> 1179

<211> 266
 <212> PRT
 <213> Homo sapiens

<400> 1179

Met	Met	Ala	Leu	Gly	Ala	Ala	Gly	Ala	Thr	Arg	Val	Phe	Val	Ala	Met
1				5					10					15	
Val	Ala	Ala	Ala	Leu	Gly	Gly	His	Pro	Leu	Leu	Gly	Val	Ser	Ala	Thr
			20					25					30		
Leu	Asn	Ser	Val	Leu	Asn	Ser	Asn	Ala	Ile	Lys	Asn	Leu	Pro	Pro	Pro
		35					40				45				
Leu	Gly	Gly	Ala	Ala	Gly	His	Pro	Gly	Ser	Ala	Val	Ser	Ala	Ala	Pro
	50					55					60				
Gly	Ile	Leu	Tyr	Pro	Gly	Gly	Asn	Lys	Tyr	Gln	Thr	Ile	Asp	Asn	Tyr
65					70					75				80	
Gln	Pro	Tyr	Pro	Cys	Ala	Glu	Asp	Glu	Glu	Cys	Gly	Thr	Asp	Glu	Tyr
				85				90					95		
Cys	Ala	Ser	Pro	Thr	Arg	Gly	Gly	Asp	Ala	Gly	Val	Gln	Ile	Cys	Leu
			100					105					110		
Ala	Cys	Arg	Lys	Arg	Arg	Lys	Arg	Cys	Met	Arg	His	Ala	Met	Cys	Cys
		115					120					125			
Pro	Gly	Asn	Tyr	Cys	Lys	Asn	Gly	Ile	Cys	Val	Ser	Ser	Asp	Gln	Asn
	130					135					140				
His	Phe	Arg	Gly	Glu	Ile	Glu	Glu	Thr	Ile	Thr	Glu	Ser	Phe	Gly	Asn
145					150					155					160
Asp	His	Ser	Thr	Leu	Asp	Gly	Tyr	Ser	Arg	Arg	Thr	Thr	Leu	Ser	Ser
				165					170					175	
Lys	Met	Tyr	His	Thr	Lys	Gly	Gln	Glu	Gly	Ser	Val	Cys	Leu	Arg	Ser
			180					185					190		
Ser	Asp	Cys	Ala	Ser	Gly	Leu	Cys	Cys	Ala	Arg	His	Phe	Trp	Ser	Lys
	195					200						205			
Ile	Cys	Lys	Pro	Val	Leu	Lys	Glu	Gly	Gln	Val	Cys	Thr	Lys	His	Arg
	210					215					220				
Arg	Lys	Gly	Ser	His	Gly	Leu	Glu	Ile	Phe	Gln	Arg	Cys	Tyr	Cys	Gly
225					230					235					240
Glu	Gly	Leu	Ser	Cys	Arg	Ile	Gln	Lys	Asp	His	His	Gln	Ala	Ser	Asn
				245				250					255		
Ser	Ser	Arg	Leu	His	Thr	Cys	Gln	Arg	His						
			260					265	266						

<210> 1180
 <211> 520
 <212> PRT
 <213> Homo sapiens

<400> 1180

Met	Ser	Thr	Leu	Tyr	Asp	Ile	Arg	Ala	His	Lys	Ala	Gln	Leu	Leu	Arg
1				5					10					15	
Phe	Phe	Ala	Ser	Ser	Asp	Ser	Asn	Lys	Ala	Leu	Glu	Gln	Arg	Arg	Thr
			20					25					30		
Leu	His	Thr	Pro	Lys	Leu	Glu	His	Leu	Asp	Arg	Val	Leu	Tyr	Glu	Trp
		35					40					45			
Phe	Leu	Gly	Lys	Arg	Ser	Glu	Gly	Val	Pro	Val	Ser	Gly	Pro	Met	Leu
	50						55				60				
Ile	Glu	Lys	Ala	Lys	Asp	Phe	Tyr	Glu	Gln	Met	Gln	Leu	Thr	Glu	Pro
65					70					75					80
Cys	Val	Phe	Ser	Gly	Gly	Trp	Leu	Trp	Arg	Phe	Lys	Ala	Arg	His	Gly
				85				90					95		
Ile	Lys	Lys	Leu	Asp	Ala	Ser	Ser	Glu	Lys	Gln	Ser	Ala	Asp	His	Gln
			100					105					110		

Ala	Ala	Glu	Gln	Phe	Cys	Ala	Phe	Phe	Arg	Ser	Leu	Ala	Ala	Glu	His
		115					120					125			
Gly	Leu	Ser	Ala	Glu	Gln	Val	Tyr	Asn	Ala	Asp	Glu	Thr	Gly	Leu	Phe
	130					135					140				
Trp	Arg	Cys	Leu	Pro	Asn	Pro	Thr	Pro	Glu	Gly	Gly	Ala	Val	Pro	Gly
145					150					155					160
Pro	Lys	Gln	Gly	Lys	Asp	Arg	Leu	Thr	Val	Leu	Met	Cys	Ala	Asn	Ala
				165					170						175
Thr	Gly	Ser	His	Arg	Leu	Lys	Pro	Leu	Ala	Ile	Gly	Lys	Cys	Ser	Gly
			180					185					190		
Pro	Arg	Ala	Phe	Lys	Gly	Ile	Gln	His	Leu	Pro	Val	Ala	Tyr	Lys	Ala
		195					200					205			
Gln	Gly	Asn	Ala	Trp	Val	Asp	Lys	Glu	Ile	Phe	Ser	Asp	Trp	Phe	His
	210					215					220				
His	Ile	Phe	Val	Pro	Ser	Val	Arg	Glu	His	Phe	Arg	Thr	Ile	Gly	Leu
225					230					235					240
Pro	Glu	Asp	Ser	Lys	Ala	Val	Leu	Leu	Leu	Asp	Ser	Ser	Arg	Ala	His
				245					250					255	
Pro	Gln	Glu	Ala	Glu	Leu	Val	Ser	Ser	Asn	Val	Phe	Thr	Ile	Phe	Leu
		260						265					270		
Pro	Ala	Ser	Val	Ala	Ser	Leu	Val	Gln	Pro	Met	Glu	Gln	Gly	Ile	Arg
		275					280					285			
Arg	Asp	Phe	Met	Arg	Asn	Phe	Ile	Asn	Pro	Pro	Val	Pro	Leu	Gln	Gly
	290				295						300				
Pro	His	Ala	Arg	Tyr	Asn	Met	Asn	Asp	Ala	Ile	Phe	Ser	Val	Ala	Cys
305					310				315						320
Ala	Trp	Asn	Ala	Val	Pro	Ser	His	Val	Phe	Arg	Arg	Ala	Trp	Arg	Lys
				325					330					335	
Leu	Trp	Pro	Ser	Val	Ala	Phe	Ala	Glu	Gly	Ser	Ser	Ser	Glu	Glu	Glu
		340						345					350		
Leu	Glu	Ala	Glu	Cys	Phe	Pro	Val	Lys	Pro	His	Asn	Lys	Ser	Phe	Ala
		355					360					365			
His	Ile	Leu	Glu	Leu	Val	Lys	Glu	Gly	Ser	Ser	Cys	Pro	Gly	Gln	Leu
	370					375					380				
Arg	Gln	Arg	Gln	Ala	Ala	Ser	Trp	Gly	Val	Ala	Gly	Arg	Glu	Ala	Glu
385					390					395					400
Gly	Gly	Arg	Pro	Pro	Ala	Ala	Thr	Ser	Pro	Ala	Glu	Val	Val	Trp	Ser
				405					410					415	
Ser	Glu	Lys	Thr	Pro	Lys	Ala	Asp	Gln	Asp	Gly	Arg	Gly	Asp	Pro	Gly
			420					425					430		
Glu	Gly	Glu	Glu	Val	Ala	Trp	Glu	Gln	Ala	Ala	Val	Ala	Phe	Asp	Ala
		435					440					445			
Val	Leu	Arg	Phe	Ala	Glu	Arg	Gln	Pro	Cys	Phe	Ser	Ala	Gln	Glu	Val
	450					455					460				
Gly	Gln	Leu	Arg	Ala	Leu	Arg	Ala	Val	Phe	Arg	Ser	Gln	Gln	Gln	Val
465					470				475						480
Arg	Arg	Arg	Arg	Gly	Ala	Leu	Gly	Ala	Val	Val	Lys	Val	Glu	Ala	Leu
				485					490					495	
Gln	Glu	Gly	Pro	Gly	Gly	Cys	Gly	Ala	Thr	Ala	Gln	Ser	Pro	Leu	Pro
			500				505						510		
Cys	Ser	Ser	Thr	Ala	Gly	Asp	Asn								
		515					520								

<210> 1181

<211> 1328

<212> PRT

<213> Homo sapiens

<400> 1181

Met	Ile	Ser	Thr	Ala	Pro	Leu	Tyr	Ser	Gly	Val	His	Asn	Trp	Thr	Ser
1				5					10					15	

Ser	Asp	Arg	Ile	Arg	Met	Cys	Gly	Ile	Asn	Glu	Glu	Arg	Arg	Ala	Pro	20	25	30
Leu	Ser	Asp	Glu	Glu	Ser	Thr	Thr	Gly	Asp	Cys	Gln	His	Phe	Gly	Ser	35	40	45
Gln	Glu	Phe	Cys	Val	Ser	Ser	Ser	Phe	Ser	Lys	Val	Glu	Leu	Thr	Ala	50	55	60
Val	Gly	Ser	Gly	Ser	Asn	Ala	Arg	Gly	Ala	Asp	Pro	Asp	Gly	Ser	Ala	65	70	75
Thr	Glu	Lys	Leu	Gly	His	Lys	Ser	Glu	Asp	Lys	Pro	Asp	Asp	Pro	Gln	85	90	95
Pro	Lys	Met	Asp	Tyr	Ala	Gly	Asn	Val	Ala	Glu	Ala	Glu	Gly	Leu	Leu	100	105	110
Val	Pro	Leu	Ser	Ser	Pro	Gly	Asp	Gly	Leu	Lys	Leu	Pro	Ala	Ser	Asp	115	120	125
Ser	Ala	Glu	Ala	Ser	Asn	Ser	Arg	Ala	Asp	Cys	Ser	Trp	Thr	Pro	Leu	130	135	140
Asn	Thr	Gln	Met	Ser	Lys	Gln	Val	Asp	Cys	Ser	Pro	Ala	Gly	Val	Lys	145	150	155
Ala	Leu	Asp	Ser	Arg	Gln	Gly	Val	Gly	Glu	Lys	Asn	Thr	Phe	Ile	Leu	165	170	175
Ala	Thr	Leu	Gly	Thr	Gly	Val	Pro	Val	Glu	Gly	Thr	Leu	Pro	Leu	Val	180	185	190
Thr	Thr	Asn	Phe	Ser	Pro	Leu	Pro	Ala	Pro	Ile	Cys	Pro	Pro	Ala	Pro	195	200	205
Ser	Ser	Ala	Ser	Val	Pro	His	Ser	Val	Pro	Asp	Ala	Phe	Gln	Ala	Pro	210	215	220
Val	Pro	Pro	Ser	Ala	Pro	Thr	Leu	Val	Leu	Ala	Pro	Val	Pro	Thr	Pro	225	230	235
Val	Leu	Ala	Pro	Met	Pro	Ala	Ser	Thr	Pro	Pro	Ala	Ala	Pro	Ala	Pro	245	250	255
Pro	Ser	Val	Pro	Met	Pro	Thr	Pro	Thr	Pro	Ser	Ser	Gly	Pro	Pro	Ser	260	265	270
Thr	Pro	Thr	Leu	Ile	Pro	Ala	Phe	Ala	Pro	Thr	Pro	Val	Pro	Ala	Pro	275	280	285
Thr	Pro	Ala	Pro	Ile	Phe	Thr	Pro	Ala	Pro	Thr	Pro	Met	Pro	Ala	Ala	290	295	300
Thr	Pro	Ala	Ala	Ile	Pro	Thr	Ser	Ala	Pro	Ile	Pro	Ala	Ser	Phe	Ser	305	310	315
Leu	Ser	Arg	Val	Cys	Phe	Pro	Ala	Ala	Gln	Ala	Pro	Ala	Met	Gln	Lys	325	330	335
Val	Pro	Leu	Ser	Phe	Gln	Pro	Gly	Thr	Val	Leu	Thr	Pro	Ser	Gln	Pro	340	345	350
Leu	Val	Tyr	Ile	Pro	Pro	Pro	Ser	Cys	Gly	Gln	Pro	Leu	Ser	Val	Ala	355	360	365
Thr	Leu	Pro	Thr	Thr	Leu	Gly	Val	Ser	Ser	Thr	Leu	Thr	Leu	Pro	Val	370	375	380
Leu	Pro	Ser	Tyr	Leu	Gln	Asp	Arg	Cys	Leu	Pro	Gly	Val	Leu	Ala	Ser	385	390	395
Pro	Glu	Leu	Arg	Ser	Tyr	Pro	Tyr	Ala	Phe	Ser	Val	Ala	Arg	Pro	Leu	405	410	415
Thr	Ser	Asp	Ser	Lys	Leu	Val	Ser	Leu	Glu	Val	Asn	Arg	Leu	Pro	Cys	420	425	430
Thr	Ser	Pro	Ser	Gly	Ser	Thr	Thr	Thr	Gln	Pro	Ala	Pro	Asp	Gly	Val	435	440	445
Pro	Gly	Pro	Leu	Ala	Asp	Thr	Ser	Leu	Val	Thr	Ala	Ser	Ala	Lys	Val	450	455	460
Leu	Pro	Thr	Pro	Gln	Pro	Leu	Leu	Pro	Ala	Pro	Ser	Gly	Ser	Ser	Ala	465	470	475
Pro	Pro	His	Pro	Ala	Lys	Met	Pro	Ser	Gly	Thr	Glu	Gln	Gln	Thr	Glu	485	490	495
Gly	Thr	Ser	Val	Thr	Phe	Ser	Pro	Leu	Lys	Ser	Pro	Pro	Gln	Leu	Glu	500	505	510
Arg	Glu	Met	Ala	Ser	Pro	Pro	Glu	Cys	Ser	Glu	Met	Pro	Leu	Asp	Leu	515	520	525

Ser	Ser	Lys	Ser	Asn	Arg	Gln	Lys	Leu	Pro	Leu	Pro	Asn	Gln	Arg	Lys
530						535					540				
Thr	Pro	Pro	Met	Pro	Val	Leu	Thr	Pro	Val	His	Thr	Ser	Ser	Lys	Ala
545					550					555					560
Leu	Leu	Ser	Thr	Val	Leu	Ser	Arg	Ser	Gln	Arg	Thr	Thr	Gln	Ala	Ala
				565					570					575	
Gly	Gly	Asn	Val	Thr	Ser	Cys	Leu	Gly	Ser	Thr	Ser	Ser	Pro	Phe	Val
			580					585					590		
Ile	Phe	Pro	Glu	Ile	Val	Arg	Asn	Gly	Asp	Pro	Ser	Thr	Trp	Val	Lys
	595						600					605			
Asn	Ser	Thr	Ala	Leu	Ile	Ser	Thr	Ile	Pro	Gly	Thr	Tyr	Val	Gly	Val
	610						615					620			
Ala	Asn	Pro	Val	Pro	Ala	Ser	Leu	Leu	Leu	Asn	Lys	Asp	Pro	Asn	Leu
625					630					635					640
Gly	Leu	Asn	Arg	Asp	Pro	Arg	His	Leu	Pro	Lys	Gln	Glu	Pro	Ile	Ser
				645					650					655	
Ile	Ile	Asp	Gln	Gly	Glu	Pro	Lys	Gly	Thr	Gly	Ala	Thr	Cys	Gly	Lys
			660					665					670		
Lys	Gly	Ser	Gln	Ala	Gly	Ala	Glu	Gly	Gln	Pro	Ser	Thr	Val	Lys	Arg
		675					680						685		
Tyr	Thr	Pro	Ala	Arg	Ile	Ala	Pro	Gly	Leu	Pro	Gly	Cys	Gln	Thr	Lys
	690					695					700				
Glu	Leu	Ser	Leu	Trp	Lys	Pro	Thr	Gly	Pro	Ala	Asn	Ile	Tyr	Pro	Arg
705					710					715					720
Cys	Ser	Val	Asn	Gly	Lys	Pro	Thr	Ser	Thr	Gln	Val	Leu	Pro	Val	Gly
				725					730					735	
Trp	Ser	Pro	Tyr	His	Gln	Ala	Ser	Leu	Leu	Ser	Ile	Gly	Ile	Ser	Ser
			740					745					750		
Ala	Gly	Gln	Leu	Thr	Pro	Ser	Gln	Gly	Ala	Pro	Ile	Arg	Pro	Thr	Ser
		755					760					765			
Val	Val	Ser	Glu	Phe	Ser	Gly	Val	Pro	Ser	Leu	Ser	Ser	Ser	Glu	Ala
	770					775					780				
Val	His	Gly	Leu	Pro	Glu	Gly	Gln	Pro	Arg	Pro	Gly	Gly	Ser	Phe	Val
785					790					795					800
Pro	Glu	Gln	Asp	Pro	Val	Thr	Lys	Asn	Lys	Thr	Cys	Arg	Ile	Ala	Ala
				805					810					815	
Lys	Pro	Tyr	Glu	Glu	Gln	Val	Asn	Pro	Val	Leu	Leu	Thr	Leu	Ser	Pro
			820					825					830		
Gln	Thr	Gly	Thr	Leu	Ala	Leu	Ser	Val	Gln	Pro	Ser	Gly	Gly	Asp	Ile
		835					840					845			
Arg	Met	Asn	Gln	Gly	Pro	Glu	Glu	Ser	Glu	Ser	His	Leu	Cys	Ser	Asp
	850					855					860				
Ser	Thr	Pro	Lys	Met	Glu	Gly	Pro	Gln	Gly	Ala	Cys	Gly	Leu	Lys	Leu
865					870					875					880
Ala	Gly	Asp	Thr	Lys	Pro	Lys	Asn	Gln	Val	Leu	Ala	Thr	Tyr	Met	Ser
				885					890					895	
His	Glu	Leu	Val	Leu	Ala	Thr	Pro	Gln	Asn	Leu	Pro	Lys	Met	Pro	Glu
			900					905					910		
Leu	Pro	Leu	Leu	Pro	His	Asp	Ser	His	Pro	Lys	Glu	Leu	Ile	Leu	Asp
		915					920					925			
Val	Val	Pro	Ser	Ser	Arg	Arg	Gly	Ser	Ser	Thr	Glu	Arg	Pro	Gln	Leu
	930					935					940				
Gly	Ser	Gln	Val	Asp	Leu	Gly	Arg	Val	Lys	Met	Glu	Lys	Val	Asp	Gly
945					950					955					960
Asp	Val	Val	Phe	Asn	Leu	Ala	Thr	Cys	Phe	Arg	Ala	Asp	Gly	Leu	Pro
				965					970					975	
Val	Ala	Pro	Gln	Arg	Gly	Gln	Ala	Glu	Val	Arg	Ala	Lys	Ala	Gly	Gln
			980					985					990		
Ala	Arg	Val	Lys	Gln	Glu	Ser	Val	Gly	Val	Phe	Ala	Cys	Lys	Asn	Lys
		995					1000					1005			
Trp	Gln	Pro	Asp	Asp	Val	Thr	Glu	Ser	Leu	Pro	Pro	Lys	Lys	Met	Lys
	1010					1015					1020				
Cys	Gly	Lys	Glu	Lys	Asp	Ser	Glu	Glu	Gln	Gln	Leu	Gln	Pro	Gln	Ala
1025					1030					1035					1040

Lys Ala Val Val Arg Ser Ser His Arg Pro Lys Cys Arg Lys Leu Pro
 1045 1050 1055
 Ser Asp Pro Gln Glu Ser Thr Lys Lys Ser Pro Arg Gly Ala Ser Asp
 1060 1065 1070
 Ser Gly Lys Glu His Asn Gly Val Arg Gly Lys His Lys His Arg Lys
 1075 1080 1085
 Pro Thr Lys Pro Glu Ser Gln Ser Pro Gly Lys Arg Ala Asp Ser His
 1090 1095 1100
 Glu Glu Gly Ser Leu Glu Lys Lys Ala Lys Ser Ser Phe Arg Asp Phe
 1105 1110 1115 1120
 Ile Pro Val Val Leu Ser Thr Arg Thr Arg Ser Gln Ser Asp Leu Lys
 1125 1130 1135
 Ala Arg Lys Gln Lys Thr Ser Ser Ser Gln Ser Leu Glu His Arg Leu
 1140 1145 1150
 Arg Asn Arg Asn Leu Leu Leu Pro Asn Lys Val Gln Gly Ile Ser Asp
 1155 1160 1165
 Ser Pro Asn Gly Phe Leu Pro Asn Asn Leu Glu Glu Pro Ala Cys Leu
 1170 1175 1180
 Glu Asn Ser Glu Lys Pro Ser Gly Lys Arg Lys Cys Lys Thr Lys His
 1185 1190 1195 1200
 Met Ala Thr Val Ser Glu Glu Ala Lys Gly Lys Gly Arg Trp Ser Gln
 1205 1210 1215
 Gln Lys Thr Arg Ser Pro Lys Ser Pro Thr Pro Val Lys Pro Thr Glu
 1220 1225 1230
 Pro Cys Thr Pro Ser Lys Ser Arg Ser Ala Ser Ser Glu Glu Ala Ser
 1235 1240 1245
 Glu Ser Pro Thr Ala Arg Gln Ile Pro Pro Glu Ala Arg Arg Leu Ile
 1250 1255 1260
 Val Asn Lys Asn Ala Gly Glu Thr Leu Leu Gln Arg Ala Ala Arg Leu
 1265 1270 1275 1280
 Gly Tyr Lys Asp Val Val Leu Tyr Cys Leu Gln Lys Asp Ser Glu Asp
 1285 1290 1295
 Val Asn His Arg Asp Asn Ala Gly Tyr Thr Ala Leu His Glu Ala Cys
 1300 1305 1310
 Ser Arg Gly Trp Thr Asp Ile Leu Asn Ile Leu Leu Glu His Gly Ala
 1315 1320 1325 1328

<210> 1182

<211> 990

<212> PRT

<213> Homo sapiens

<400> 1182

Met Thr Ser Pro Leu Val Thr Trp Val Lys Thr Phe Gly Pro Leu Ala
 1 5 10 15
 Ala Gly Asn Gly Thr Asn Leu Asp Glu Tyr Val Ala Leu Val Asp Gly
 20 25 30
 Val Phe Leu Asn Gln Val Met Leu Gln Ile Asn Pro Lys Leu Glu Ser
 35 40 45
 Gln Arg Val Asn Lys Lys Val Asn Asn Asp Ala Ser Leu Arg Met His
 50 55 60
 Asn Leu Ser Ile Leu Val Arg Gln Ile Lys Phe Tyr Tyr Gln Glu Thr
 65 70 75 80
 Leu Gln Gln Leu Ile Met Met Ser Leu Pro Asn Val Leu Ile Ile Gly
 85 90 95
 Lys Asn Pro Phe Ser Glu Gln Gly Thr Glu Glu Val Lys Lys Leu Leu
 100 105 110
 Leu Leu Leu Leu Gly Cys Ala Val Gln Cys Gln Lys Lys Glu Glu Phe
 115 120 125

Ile	Glu	Arg	Ile	Gln	Gly	Leu	Asp	Phe	Asp	Thr	Lys	Ala	Ala	Val	Ala
130						135					140				
Ala	His	Ile	Gln	Glu	Val	Thr	His	Asn	Gln	Glu	Asn	Val	Phe	Asp	Leu
145					150					155					160
Gln	Trp	Met	Glu	Val	Thr	Asp	Met	Ser	Gln	Glu	Asp	Ile	Glu	Pro	Leu
				165					170					175	
Leu	Lys	Asn	Met	Ala	Leu	His	Leu	Lys	Arg	Leu	Ile	Asp	Glu	Arg	Asp
			180					185					190		
Glu	His	Ser	Glu	Thr	Ile	Ile	Glu	Leu	Ser	Glu	Glu	Arg	Asp	Gly	Leu
		195					200					205			
His	Phe	Leu	Pro	His	Ala	Ser	Ser	Ser	Ala	Gln	Ser	Pro	Cys	Gly	Ser
	210					215					220				
Pro	Gly	Met	Lys	Arg	Thr	Glu	Ser	Arg	Gln	His	Leu	Ser	Val	Glu	Leu
225					230					235					240
Ala	Asp	Ala	Lys	Ala	Lys	Ile	Arg	Arg	Leu	Arg	Gln	Glu	Leu	Glu	Glu
				245					250					255	
Lys	Thr	Glu	Gln	Leu	Leu	Asp	Cys	Lys	Gln	Glu	Leu	Glu	Gln	Met	Glu
			260					265					270		
Ile	Glu	Leu	Lys	Arg	Leu	Gln	Gln	Glu	Asn	Met	Asn	Leu	Leu	Ser	Asp
		275					280					285			
Ala	Arg	Ser	Ala	Arg	Met	Tyr	Arg	Asp	Glu	Leu	Asp	Ala	Leu	Arg	Glu
	290					295					300				
Lys	Ala	Val	Arg	Val	Asp	Lys	Leu	Glu	Ser	Glu	Val	Ser	Arg	Tyr	Lys
305					310					315					320
Glu	Arg	Leu	His	Asp	Ile	Glu	Phe	Tyr	Lys	Ala	Arg	Val	Glu	Glu	Leu
				325					330					335	
Lys	Glu	Asp	Asn	Gln	Val	Leu	Leu	Glu	Thr	Lys	Thr	Met	Leu	Glu	Asp
			340					345					350		
Gln	Leu	Glu	Gly	Thr	Arg	Ala	Arg	Ser	Asp	Lys	Leu	His	Glu	Leu	Glu
		355					360					365			
Lys	Glu	Asn	Leu	Gln	Leu	Lys	Ala	Lys	Leu	His	Asp	Met	Glu	Met	Glu
	370					375					380				
Arg	Asp	Met	Asp	Arg	Lys	Lys	Ile	Glu	Glu	Leu	Met	Glu	Glu	Asn	Met
385					390					395					400
Thr	Leu	Glu	Met	Ala	Gln	Lys	Gln	Ser	Met	Asp	Glu	Ser	Leu	His	Leu
				405					410					415	
Gly	Trp	Glu	Leu	Glu	Gln	Ile	Ser	Arg	Thr	Ser	Glu	Leu	Ser	Glu	Ala
			420					425					430		
Pro	Gln	Lys	Ser	Leu	Gly	His	Glu	Val	Asn	Glu	Leu	Thr	Ser	Ser	Arg
		435					440					445			
Leu	Leu	Lys	Leu	Glu	Met	Glu	Asn	Gln	Ser	Leu	Thr	Lys	Thr	Val	Glu
	450					455					460				
Glu	Leu	Arg	Thr	Thr	Val	Asp	Ser	Val	Glu	Gly	Asn	Ala	Ser	Lys	Ile
465					470					475					480
Leu	Lys	Met	Glu	Lys	Glu	Asn	Gln	Arg	Leu	Ser	Lys	Lys	Val	Glu	Ile
				485					490					495	
Leu	Glu	Asn	Glu	Ile	Val	Gln	Glu	Lys	Gln	Ser	Leu	Gln	Asn	Cys	Gln
			500					505					510		
Asn	Leu	Ser	Lys	Asp	Leu	Met	Lys	Glu	Lys	Ala	Gln	Leu	Glu	Lys	Thr
		515					520					525			
Ile	Glu	Thr	Leu	Arg	Glu	Asn	Ser	Glu	Arg	Gln	Ile	Lys	Ile	Leu	Glu
	530					535						540			
Gln	Glu	Asn	Glu	His	Leu	Asn	Gln	Thr	Val	Ser	Ser	Leu	Arg	Gln	Arg
545					550					555					560
Ser	Gln	Ile	Ser	Ala	Glu	Ala	Arg	Val	Lys	Asp	Ile	Glu	Lys	Glu	Asn
				565					570					575	
Lys	Ile	Leu	His	Glu	Ser	Ile	Lys	Glu	Thr	Ser	Ser	Lys	Leu	Ser	Lys
			580					585					590		
Ile	Glu	Phe	Glu	Lys	Arg	Gln	Ile	Lys	Lys	Glu	Leu	Glu	His	Tyr	Lys
		595					600					605			
Glu	Lys	Gly	Glu	Arg	Ala	Glu	Glu	Leu	Glu	Asn	Glu	Leu	His	His	Leu
	610					615					620				
Glu	Lys	Glu	Asn	Glu	Leu	Leu	Gln	Lys	Lys	Ile	Thr	Asn	Leu	Lys	Ile
625					630					635					640

Thr	Cys	Glu	Lys	Ile	Glu	Ala	Leu	Glu	Gln	Glu	Asn	Ser	Glu	Leu	Glu
				645					650					655	
Arg	Glu	Asn	Arg	Lys	Leu	Lys	Lys	Thr	Leu	Asp	Ser	Phe	Lys	Asn	Leu
			660					665					670		
Thr	Phe	Gln	Leu	Glu	Ser	Leu	Glu	Lys	Glu	Asn	Ser	Gln	Leu	Asp	Glu
		675					680					685			
Glu	Asn	Leu	Glu	Leu	Arg	Arg	Asn	Val	Glu	Ser	Leu	Lys	Cys	Ala	Ser
		690				695					700				
Met	Lys	Met	Ala	Gln	Leu	Gln	Leu	Glu	Asn	Lys	Glu	Leu	Glu	Ser	Glu
705				710					715					720	
Lys	Glu	Gln	Leu	Lys	Lys	Gly	Leu	Glu	Leu	Leu	Lys	Ala	Ser	Phe	Lys
			725					730						735	
Lys	Thr	Glu	Arg	Leu	Glu	Val	Ser	Tyr	Gln	Gly	Leu	Asp	Ile	Glu	Asn
			740					745					750		
Gln	Arg	Leu	Gln	Lys	Thr	Leu	Glu	Asn	Ser	Asn	Lys	Lys	Ile	Gln	Gln
		755					760					765			
Leu	Glu	Ser	Glu	Leu	Gln	Asp	Leu	Glu	Met	Glu	Asn	Gln	Thr	Leu	Gln
		770				775					780				
Lys	Asn	Leu	Glu	Glu	Leu	Lys	Ile	Ser	Ser	Lys	Arg	Leu	Glu	Gln	Leu
785					790					795					800
Glu	Lys	Glu	Asn	Lys	Ser	Leu	Glu	Gln	Glu	Thr	Ser	Gln	Leu	Glu	Lys
			805					810						815	
Asp	Lys	Lys	Gln	Leu	Glu	Lys	Glu	Asn	Lys	Arg	Leu	Arg	Gln	Gln	Ala
			820					825					830		
Glu	Ile	Lys	Asp	Thr	Thr	Leu	Glu	Glu	Asn	Asn	Val	Lys	Ile	Gly	Asn
		835					840					845			
Leu	Glu	Lys	Glu	Asn	Lys	Thr	Leu	Ser	Lys	Glu	Ile	Gly	Ile	Tyr	Lys
		850				855					860				
Glu	Ser	Cys	Val	Arg	Leu	Lys	Glu	Leu	Glu	Lys	Glu	Asn	Lys	Glu	Leu
865					870					875					880
Val	Lys	Arg	Ala	Thr	Ile	Asp	Ile	Lys	Thr	Leu	Val	Thr	Leu	Arg	Glu
			885						890					895	
Asp	Leu	Val	Ser	Glu	Lys	Leu	Lys	Thr	Gln	Gln	Met	Asn	Asn	Asp	Leu
			900					905						910	
Glu	Lys	Leu	Thr	His	Glu	Leu	Glu	Lys	Ile	Gly	Leu	Asn	Lys	Glu	Arg
		915					920						925		
Leu	Leu	His	Asp	Glu	Gln	Ser	Thr	Asp	Asp	Ser	Arg	Tyr	Lys	Leu	Leu
		930				935					940				
Glu	Ser	Lys	Leu	Glu	Ser	Thr	Leu	Lys	Lys	Ser	Leu	Glu	Ile	Lys	Glu
945					950					955					960
Glu	Lys	Ile	Ala	Ala	Leu	Glu	Ala	Arg	Leu	Glu	Glu	Ser	Thr	Asn	Tyr
			965					970						975	
Asn	Gln	Gln	Leu	Arg	Gln	Glu	Leu	Lys	Thr	Val	Lys	Lys	Lys		
			980					985					990		

<210> 1183

<211> 819

<212> PRT

<213> Homo sapiens

<400> 1183

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Gln	Ala	Glu	Glu	Pro	Arg	Ser	Phe	Glu	Val	Thr	Arg	Arg	Glu	Gly	Leu
			20					25					30		
Ser	Ser	His	Asn	Glu	Leu	Leu	Ala	Ser	Cys	Gly	Lys	Lys	Phe	Cys	Ser
		35					40					45			
Arg	Gly	Ser	Arg	Cys	Val	Leu	Ser	Arg	Lys	Thr	Gly	Glu	Pro	Glu	Cys
	50					55				60					
Gln	Cys	Leu	Glu	Ala	Cys	Arg	Pro	Ser	Tyr	Val	Pro	Val	Cys	Gly	Ser
65					70					75					80

Asp	Gly	Arg	Phe	Tyr	Glu	Asn	His	Cys	Lys	Leu	His	Arg	Ala	Ala	Cys
			85						90					95	
Leu	Leu	Gly	Lys	Arg	Ile	Thr	Val	Ile	His	Ser	Lys	Asp	Cys	Phe	Leu
			100					105					110		
Lys	Gly	Asp	Thr	Cys	Thr	Met	Ala	Gly	Tyr	Ala	Arg	Leu	Lys	Asn	Val
		115					120					125			
Leu	Leu	Ala	Leu	Gln	Thr	Arg	Leu	Gln	Pro	Leu	Gln	Glu	Gly	Asp	Ser
		130				135					140				
Arg	Gln	Asp	Pro	Ala	Ser	Gln	Lys	Arg	Leu	Leu	Val	Glu	Ser	Leu	Phe
145					150					155					160
Arg	Asp	Leu	Asp	Ala	Asp	Gly	Asn	Gly	His	Leu	Ser	Ser	Ser	Glu	Leu
				165					170					175	
Ala	Gln	His	Val	Leu	Lys	Lys	Gln	Asp	Leu	Asp	Glu	Asp	Leu	Leu	Gly
			180					185					190		
Cys	Ser	Pro	Gly	Asp	Leu	Leu	Arg	Phe	Asp	Asp	Tyr	Asn	Ser	Asp	Ser
		195					200					205			
Ser	Leu	Thr	Leu	Arg	Glu	Phe	Tyr	Met	Ala	Phe	Gln	Val	Val	Gln	Leu
		210				215					220				
Ser	Leu	Ala	Pro	Glu	Asp	Arg	Val	Ser	Val	Thr	Thr	Val	Thr	Val	Gly
225					230					235					240
Leu	Ser	Thr	Val	Leu	Thr	Cys	Ala	Val	His	Gly	Asp	Leu	Arg	Pro	Pro
			245						250					255	
Ile	Ile	Trp	Lys	Arg	Asn	Gly	Leu	Thr	Leu	Asn	Phe	Leu	Asp	Leu	Glu
			260					265					270		
Asp	Ile	Asn	Asp	Phe	Gly	Glu	Asp	Asp	Ser	Leu	Tyr	Ile	Thr	Lys	Val
		275					280						285		
Thr	Thr	Ile	His	Met	Gly	Asn	Tyr	Thr	Cys	His	Ala	Ser	Gly	His	Glu
		290				295					300				
Gln	Leu	Phe	Gln	Thr	His	Val	Leu	Gln	Val	Asn	Val	Pro	Pro	Val	Ile
305					310					315					320
Arg	Val	Tyr	Pro	Glu	Ser	Gln	Ala	Gln	Glu	Pro	Gly	Val	Ala	Ala	Ser
				325					330					335	
Leu	Arg	Cys	His	Ala	Glu	Gly	Ile	Pro	Met	Pro	Arg	Ile	Thr	Trp	Leu
			340					345					350		
Lys	Asn	Gly	Val	Asp	Val	Ser	Thr	Gln	Met	Ser	Lys	Gln	Leu	Ser	Leu
		355					360					365			
Leu	Ala	Asn	Gly	Ser	Glu	Leu	His	Ile	Ser	Ser	Val	Arg	Tyr	Glu	Asp
		370				375					380				
Thr	Gly	Ala	Tyr	Thr	Cys	Ile	Ala	Lys	Asn	Glu	Val	Gly	Val	Asp	Glu
385					390					395					400
Asp	Ile	Ser	Ser	Leu	Phe	Ile	Glu	Asp	Ser	Ala	Arg	Lys	Thr	Leu	Ala
				405					410					415	
Asn	Ile	Leu	Trp	Arg	Glu	Glu	Gly	Leu	Ser	Val	Gly	Asn	Met	Phe	Tyr
			420					425					430		
Val	Phe	Ser	Asp	Asp	Gly	Ile	Ile	Val	Ile	His	Pro	Val	Asp	Cys	Glu
		435					440					445			
Ile	Gln	Arg	His	Leu	Lys	Pro	Thr	Glu	Lys	Ile	Phe	Met	Ser	Tyr	Glu
		450				455					460				
Glu	Ile	Cys	Pro	Gln	Arg	Glu	Lys	Asn	Ala	Thr	Gln	Pro	Cys	Gln	Trp
465					470					475					480
Val	Ser	Ala	Val	Asn	Val	Arg	Asn	Arg	Tyr	Ile	Tyr	Val	Ala	Gln	Pro
				485					490					495	
Ala	Leu	Ser	Arg	Val	Leu	Val	Val	Asp	Ile	Gln	Ala	Gln	Lys	Val	Leu
			500					505					510		
Gln	Ser	Ile	Gly	Val	Asp	Pro	Leu	Pro	Ala	Lys	Leu	Ser	Tyr	Asp	Lys
		515					520						525		
Ser	His	Asp	Gln	Val	Trp	Val	Leu	Ser	Trp	Gly	Asp	Val	His	Lys	Ser
		530				535					540				
Arg	Pro	Ser	Leu	Gln	Val	Ile	Thr	Glu	Ala	Ser	Thr	Gly	Gln	Ser	Gln
545					550					555					560
His	Leu	Ile	Arg	Thr	Pro	Phe	Ala	Gly	Val	Asp	Asp	Phe	Phe	Ile	Pro
				565					570					575	
Pro	Thr	Asn	Leu	Ile	Ile	Asn	His	Ile	Arg	Phe	Gly	Phe	Ile	Phe	Asn
			580					585					590		

Lys Ser Asp Pro Ala Val His Lys Val Asp Leu Glu Thr Met Met Pro
 595 600 605
 Leu Lys Thr Ile Gly Leu His His His Gly Cys Val Pro Gln Ala Met
 610 615 620
 Ala His Thr His Leu Gly Gly Tyr Phe Phe Ile Gln Cys Arg Gln Asp
 625 630 635 640
 Ser Pro Ala Ser Ala Ala Arg Gln Leu Leu Val Asp Ser Val Thr Asp
 645 650 655
 Ser Val Leu Gly Pro Asn Gly Asp Val Thr Gly Thr Pro His Thr Ser
 660 665 670
 Pro Asp Gly Arg Phe Ile Val Ser Ala Ala Ala Asp Ser Pro Trp Leu
 675 680 685
 His Val Gln Glu Ile Thr Val Arg Gly Glu Ile Gln Thr Leu Tyr Asp
 690 695 700
 Leu Gln Ile Asn Ser Gly Ile Ser Asp Leu Ala Phe Gln Arg Ser Phe
 705 710 715 720
 Thr Glu Ser Asn Gln Tyr Asn Ile Tyr Ala Ala Leu His Thr Glu Pro
 725 730 735
 Asp Leu Leu Phe Leu Glu Leu Ser Thr Gly Lys Val Gly Met Leu Lys
 740 745 750
 Asn Leu Lys Glu Pro Pro Ala Gly Pro Ala Gln Pro Trp Gly Gly Thr
 755 760 765
 His Arg Ile Met Arg Asp Ser Gly Leu Phe Gly Gln Tyr Leu Leu Thr
 770 775 780
 Pro Ala Arg Glu Ser Leu Phe Leu Ile Asn Gly Arg Gln Asn Thr Leu
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 Arg Cys Glu Val Ser Gly Ile Lys Gly Gly Thr Thr Val Val Trp Val
 805 810 815
 Gly Glu Val
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<210> 1184
 <211> 837
 <212> PRT
 <213> Homo sapiens

<400> 1184
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 Arg Gly Gly Gly Pro Arg Ser Thr Ala Gly Gly Val Ala Leu Ala Val
 35 40 45
 Val Val Leu Ser Leu Ala Leu Gly Met Ser Gly Arg Trp Val Leu Ala
 50 55 60
 Trp Tyr Arg Ala Arg Arg Ala Val Thr Leu His Ser Ala Pro Pro Val
 65 70 75 80
 Leu Pro Ala Asp Ser Ser Ser Pro Ala Val Ala Pro Asp Leu Phe Trp
 85 90 95
 Gly Thr Tyr Arg Pro His Val Tyr Phe Gly Met Lys Thr Arg Ser Pro
 100 105 110
 Lys Pro Leu Leu Thr Gly Leu Met Trp Ala Gln Gln Gly Thr Thr Pro
 115 120 125
 Gly Thr Pro Lys Leu Arg His Thr Cys Glu Gln Gly Asp Gly Val Gly
 130 135 140
 Pro Tyr Gly Trp Glu Phe His Asp Gly Leu Ser Phe Gly Arg Gln His
 145 150 155 160
 Ile Gln Asp Gly Ala Leu Arg Leu Thr Thr Glu Phe Val Lys Arg Pro
 165 170 175
 Gly Gly Gln His Gly Gly Asp Trp Ser Trp Arg Val Thr Val Glu Pro
 180 185 190

Gln	Asp	Ser	Gly	Thr	Ser	Ala	Leu	Pro	Leu	Val	Ser	Leu	Phe	Phe	Tyr
	195						200					205			
Val	Val	Thr	Asp	Gly	Lys	Glu	Val	Leu	Leu	Pro	Glu	Val	Gly	Ala	Lys
	210					215					220				
Gly	Gln	Leu	Lys	Phe	Ile	Ser	Gly	His	Thr	Ser	Glu	Leu	Gly	Asp	Phe
225					230					235					240
Arg	Phe	Thr	Leu	Leu	Pro	Pro	Thr	Ser	Pro	Gly	Asp	Thr	Ala	Pro	Lys
				245					250						255
Tyr	Gly	Ser	Tyr	Asn	Val	Phe	Trp	Thr	Ser	Asn	Pro	Gly	Leu	Pro	Leu
		260					265						270		
Leu	Thr	Glu	Met	Val	Lys	Ser	Arg	Leu	Asn	Ser	Trp	Phe	Gln	His	Arg
		275					280					285			
Pro	Pro	Gly	Ala	Ser	Pro	Glu	Arg	Tyr	Leu	Gly	Leu	Pro	Gly	Ser	Leu
	290					295					300				
Lys	Trp	Glu	Asp	Arg	Gly	Pro	Ser	Gly	Gln	Gly	Gln	Gly	Gln	Phe	Leu
305					310					315					320
Ile	Gln	Gln	Val	Thr	Leu	Lys	Ile	Pro	Ile	Ser	Ile	Glu	Phe	Val	Phe
				325					330					335	
Glu	Ser	Gly	Ser	Ala	Gln	Ala	Gly	Gly	Asn	Gln	Ala	Leu	Pro	Arg	Leu
			340					345					350		
Ala	Gly	Ser	Leu	Leu	Thr	Gln	Ala	Leu	Glu	Ser	His	Ala	Glu	Gly	Phe
	355						360					365			
Arg	Glu	Arg	Phe	Glu	Lys	Thr	Phe	Gln	Leu	Lys	Glu	Lys	Gly	Leu	Ser
	370					375					380				
Ser	Gly	Glu	Gln	Val	Leu	Gly	Gln	Ala	Ala	Leu	Ser	Gly	Leu	Leu	Gly
385					390					395					400
Gly	Ile	Gly	Tyr	Phe	Tyr	Gly	Gln	Gly	Leu	Val	Leu	Pro	Asp	Ile	Gly
				405					410					415	
Val	Glu	Gly	Ser	Glu	Gln	Lys	Val	Asp	Pro	Ala	Leu	Phe	Pro	Pro	Val
			420					425				430			
Pro	Leu	Phe	Thr	Ala	Val	Pro	Ser	Arg	Ser	Phe	Phe	Pro	Arg	Gly	Phe
	435					440						445			
Leu	Trp	Asp	Glu	Gly	Phe	His	Gln	Leu	Val	Val	Gln	Arg	Trp	Asp	Pro
	450					455					460				
Ser	Leu	Thr	Arg	Glu	Ala	Leu	Gly	His	Trp	Leu	Gly	Leu	Leu	Asn	Ala
465					470					475					480
Asp	Gly	Trp	Ile	Gly	Arg	Glu	Gln	Ile	Leu	Gly	Asp	Glu	Ala	Arg	Ala
				485					490					495	
Arg	Val	Pro	Pro	Glu	Phe	Leu	Val	Gln	Arg	Ala	Val	His	Ala	Asn	Pro
		500						505					510		
Pro	Thr	Leu	Leu	Leu	Pro	Val	Ala	His	Met	Leu	Glu	Val	Gly	Asp	Pro
	515					520						525			
Asp	Asp	Leu	Ala	Phe	Leu	Arg	Lys	Ala	Leu	Pro	Arg	Leu	His	Ala	Trp
	530					535					540				
Phe	Ser	Trp	Leu	His	Gln	Ser	Gln	Ala	Gly	Pro	Leu	Pro	Leu	Ser	Tyr
545					550					555					560
Arg	Trp	Arg	Gly	Arg	Asp	Pro	Ala	Leu	Pro	Thr	Leu	Leu	Asn	Pro	Lys
				565					570					575	
Thr	Leu	Pro	Ser	Gly	Leu	Asp	Asp	Tyr	Pro	Arg	Ala	Ser	His	Pro	Ser
		580						585					590		
Val	Thr	Glu	Arg	His	Leu	Asp	Leu	Arg	Cys	Trp	Val	Ala	Leu	Gly	Ala
	595					600						605			
Arg	Val	Leu	Thr	Arg	Leu	Ala	Glu	His	Leu	Gly	Glu	Ala	Glu	Val	Ala
	610					615					620				
Ala	Glu	Leu	Gly	Pro	Leu	Ala	Ala	Ser	Leu	Glu	Ala	Ala	Glu	Ser	Leu
625					630					635					640
Asp	Glu	Leu	His	Trp	Ala	Pro	Glu	Leu	Gly	Val	Phe	Ala	Asp	Phe	Gly
				645					650					655	
Asn	His	Thr	Lys	Ala	Val	Gln	Leu	Lys	Pro	Arg	Pro	Pro	Gln	Gly	Leu
			660					665					670		
Val	Arg	Val	Val	Gly	Arg	Pro	Gln	Pro	Gln	Leu	Gln	Tyr	Val	Asp	Ala
	675						680					685			
Leu	Gly	Tyr	Val	Ser	Leu	Phe	Pro	Leu	Leu	Leu	Arg	Leu	Leu	Asp	Pro
	690					695					700				

Thr	Ser	Ser	Arg	Leu	Gly	Pro	Leu	Leu	Asp	Ile	Leu	Ala	Asp	Ser	Arg
705					710					715					720
His	Leu	Trp	Ser	Pro	Phe	Gly	Leu	Arg	Ser	Leu	Ala	Ala	Ser	Ser	Ser
				725					730						735
Phe	Tyr	Gly	Gln	Arg	Asn	Ser	Glu	His	Asp	Pro	Pro	Tyr	Trp	Arg	Gly
			740					745						750	
Ala	Val	Trp	Leu	Asn	Val	Asn	Tyr	Leu	Ala	Leu	Gly	Ala	Leu	His	His
		755					760					765			
Tyr	Gly	His	Leu	Glu	Gly	Pro	His	Gln	Ala	Arg	Ala	Ala	Lys	Leu	His
	770					775					780				
Gly	Glu	Leu	Arg	Ala	Asn	Val	Val	Gly	Asn	Val	Trp	Arg	Gln	Tyr	Gln
785					790					795					800
Ala	Thr	Gly	Phe	Leu	Trp	Glu	Gln	Tyr	Ser	Asp	Arg	Asp	Gly	Arg	Gly
				805					810					815	
Met	Gly	Cys	Arg	Pro	Phe	His	Gly	Trp	Thr	Ser	Leu	Val	Leu	Leu	Ala
			820					825					830		
Met	Ala	Glu	Asp	Tyr											
		835		837											

<210> 1185
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 <212> PRT
 <213> Homo sapiens

<400> 1185

Met	Leu	Leu	Asn	Gly	Asp	Cys	Pro	Glu	Ser	Leu	Lys	Lys	Glu	Ala	Ala
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Ala	Ala	Glu	Pro	Pro	Arg	Glu	Asn	Gly	Leu	Asp	Glu	Ala	Gly	Pro	Gly
			20					25					30		
Asp	Glu	Thr	Thr	Gly	Gln	Glu	Ala	Ile	Val	Ile	Gln	Asp	Thr	Gly	Phe
		35					40					45			
Ser	Val	Lys	Ile	Leu	Ala	Pro	Gly	Ile	Glu	Pro	Phe	Ser	Leu	Gln	Val
	50					55					60				
Ser	Pro	Gln	Glu	Met	Val	Gln	Glu	Ile	His	Gln	Val	Leu	Met	Asp	Arg
	65				70					75					80
Glu	Asp	Thr	Cys	His	Arg	Thr	Cys	Phe	Ser	Leu	His	Leu	Asp	Gly	Asn
				85					90					95	
Val	Leu	Asp	His	Phe	Ser	Glu	Leu	Arg	Ser	Val	Glu	Gly	Leu	Gln	Glu
			100					105					110		
Gly	Ser	Val	Leu	Arg	Val	Val	Glu	Glu	Pro	Tyr	Thr	Val	Arg	Glu	Ala
		115					120					125			
Arg	Ile	His	Val	Arg	His	Val	Arg	Asp	Leu	Leu	Lys	Ser	Leu	Asp	Pro
	130					135					140				
Ser	Asp	Ala	Phe	Asn	Gly	Val	Asp	Cys	Asn	Ser	Leu	Ser	Phe	Leu	Ser
	145				150					155					160
Val	Phe	Thr	Asp	Gly	Asp	Leu	Gly	Asp	Ser	Gly	Lys	Arg	Lys	Lys	Gly
				165				170						175	
Leu	Glu	Met	Asp	Pro	Ile	Asp	Cys	Thr	Pro	Pro	Glu	Tyr	Ile	Leu	Pro
			180					185					190		
Gly	Ser	Arg	Glu	Arg	Pro	Leu	Cys	Pro	Leu	Gln	Pro	Gln	Asn	Arg	Asp
		195					200					205			
Trp	Lys	Pro	Leu	Gln	Cys	Leu	Lys	Val	Leu	Thr	Met	Ser	Gly	Trp	Asn
	210					215					220				
Pro	Pro	Pro	Gly	Asn	Arg	Lys	Met	His	Gly	Asp	Leu	Met	Tyr	Leu	Phe
	225				230					235					240
Val	Ile	Thr	Ala	Glu	Asp	Arg	Gln	Val	Ser	Ile	Thr	Ala	Ser	Thr	Arg
				245					250					255	
Gly	Phe	Tyr	Leu	Asn	Gln	Ser	Thr	Ala	Tyr	His	Phe	Asn	Pro	Lys	Pro
			260					265					270		
Ala	Ser	Pro	Arg	Phe	Leu	Ser	His	Ser	Leu	Val	Glu	Leu	Leu	Asn	Gln
		275					280					285			

Ile	Ser	Pro	Thr	Phe	Lys	Lys	Asn	Phe	Ala	Val	Leu	Gln	Lys	Lys	Arg
290						295					300				
Val	Gln	Arg	His	Pro	Phe	Glu	Arg	Ile	Ala	Thr	Pro	Phe	Gln	Val	Tyr
305					310				315						320
Ser	Trp	Thr	Ala	Pro	Gln	Ala	Glu	His	Ala	Met	Asp	Cys	Val	Arg	Ala
				325					330					335	
Glu	Asp	Ala	Tyr	Thr	Ser	Arg	Leu	Gly	Tyr	Glu	Glu	His	Ile	Pro	Gly
			340					345					350		
Gln	Thr	Arg	Asp	Trp	Asn	Glu	Glu	Leu	Gln	Thr	Thr	Arg	Glu	Leu	Pro
		355				360						365			
Arg	Lys	Asn	Leu	Pro	Glu	Arg	Leu	Leu	Arg	Glu	Arg	Ala	Ile	Phe	Lys
	370					375					380				
Val	His	Ser	Asp	Phe	Thr	Ala	Ala	Ala	Thr	Arg	Gly	Ala	Met	Ala	Val
385					390					395					400
Ile	Asp	Gly	Asn	Val	Met	Ala	Ile	Asn	Pro	Ser	Glu	Glu	Thr	Lys	Met
			405						410					415	
Gln	Met	Phe	Ile	Trp	Asn	Asn	Ile	Phe	Phe	Ser	Leu	Gly	Phe	Asp	Val
			420					425					430		
Arg	Asp	His	Tyr	Lys	Asp	Phe	Gly	Gly	Asp	Val	Ala	Ala	Tyr	Val	Ala
		435					440					445			
Pro	Thr	Asn	Asp	Leu	Asn	Gly	Val	Arg	Thr	Tyr	Asn	Ala	Val	Asp	Val
		450				455					460				
Glu	Gly	Leu	Tyr	Thr	Leu	Gly	Thr	Val	Val	Val	Asp	Tyr	Arg	Gly	Tyr
465					470					475					480
Arg	Val	Thr	Ala	Gln	Ser	Ile	Ile	Pro	Gly	Ile	Leu	Glu	Arg	Asp	Gln
			485						490					495	
Glu	Gln	Ser	Val	Ile	Tyr	Gly	Ser	Ile	Asp	Phe	Gly	Lys	Thr	Val	Val
			500					505					510		
Ser	His	Pro	Arg	Tyr	Leu	Glu	Leu	Leu	Glu	Arg	Thr	Ser	Arg	Pro	Leu
		515					520					525			
Lys	Ile	Leu	Arg	His	Gln	Val	Leu	Asn	Asp	Arg	Asp	Glu	Glu	Val	Glu
	530				535						540				
Leu	Cys	Ser	Ser	Val	Glu	Cys	Lys	Gly	Ile	Ile	Gly	Asn	Asp	Gly	Arg
545					550					555					560
His	Tyr	Ile	Leu	Asp	Leu	Leu	Arg	Thr	Phe	Pro	Pro	Asp	Leu	Asn	Phe
			565						570					575	
Leu	Pro	Val	Pro	Gly	Glu	Glu	Leu	Pro	Glu	Glu	Cys	Ala	Arg	Ala	Gly
			580					585					590		
Phe	Pro	Arg	Ala	His	Arg	His	Lys	Leu	Cys	Cys	Leu	Arg	Gln	Glu	Leu
		595					600					605			
Val	Asp	Ala	Phe	Val	Glu	His	Arg	Tyr	Leu	Leu	Phe	Met	Lys	Leu	Ala
	610					615					620				
Ala	Leu	Gln	Leu	Met	Gln	Gln	Asn	Ala	Ser	Gln	Leu	Glu	Thr	Pro	Ser
625					630					635					640
Ser	Leu	Glu	Asn	Gly	Gly	Pro	Ser	Ser	Leu	Glu	Ser	Lys	Ser	Glu	Asp
			645						650					655	
Pro	Pro	Gly	Gln	Glu	Ala	Gly	Ser	Glu	Glu	Glu	Gly	Ser	Ser	Ala	Ser
			660					665					670		
Gly	Leu	Ala	Lys	Val	Lys	Glu	Leu	Ala	Glu	Thr	Ile	Ala	Ala	Asp	Asp
		675					680					685			
Gly	Thr	Asp	Pro	Arg	Ser	Arg	Glu	Val	Ile	Arg	Asn	Ala	Cys	Lys	Ala
	690					695					700				
Val	Gly	Ser	Ile	Ser	Ser	Thr	Ala	Phe	Asp	Ile	Arg	Phe	Asn	Pro	Asp
705					710					715					720
Ile	Phe	Ser	Pro	Gly	Val	Arg	Phe	Pro	Glu	Ser	Cys	Gln	Asp	Glu	Val
			725						730					735	
Arg	Asp	Gln	Lys	Gln	Leu	Leu	Lys	Asp	Ala	Ala	Ala	Phe	Leu	Leu	Ser
			740					745					750		
Cys	Gln	Ile	Pro	Gly	Leu	Val	Lys	Asp	Cys	Met	Glu	His	Ala	Val	Leu
		755					760					765			
Pro	Val	Asp	Gly	Ala	Thr	Leu	Ala	Glu	Val	Met	Arg	Gln	Arg	Gly	Ile
	770					775					780				
Asn	Met	Arg	Tyr	Leu	Gly	Lys	Val	Leu	Glu	Leu	Val	Leu	Arg	Ser	Pro
785					790					795					800

Ala	Arg	His	Gln	Leu	Asp	His	Val	Phe	Lys	Ile	Gly	Ile	Gly	Glu	Leu	805	810	815
Ile	Thr	Arg	Ser	Ala	Lys	His	Ile	Phe	Lys	Thr	Tyr	Leu	Gln	Gly	Val	820	825	830
Glu	Leu	Ser	Gly	Leu	Ser	Ala	Ala	Ile	Ser	His	Phe	Leu	Asn	Cys	Phe	835	840	845
Leu	Ser	Ser	Tyr	Pro	Asn	Pro	Val	Ala	His	Leu	Pro	Ala	Asp	Glu	Leu	850	855	860
Val	Ser	Lys	Lys	Arg	Asn	Lys	Arg	Arg	Lys	Asn	Arg	Pro	Pro	Gly	Ala	865	870	875
Ala	Asp	Asn	Thr	Ala	Trp	Ala	Val	Met	Thr	Pro	Gln	Glu	Leu	Trp	Lys	885	890	895
Asn	Ile	Cys	Gln	Glu	Ala	Lys	Asn	Tyr	Phe	Asp	Phe	Asp	Leu	Glu	Cys	900	905	910
Glu	Thr	Val	Asp	Gln	Ala	Val	Glu	Thr	Tyr	Gly	Leu	Gln	Lys	Ile	Thr	915	920	925
Leu	Leu	Arg	Glu	Ile	Ser	Leu	Lys	Thr	Gly	Ile	Gln	Val	Leu	Leu	Lys	930	935	940
Glu	Tyr	Ser	Phe	Asp	Ser	Arg	His	Lys	Pro	Ala	Phe	Thr	Glu	Glu	Asp	945	950	955
Val	Leu	Asn	Ile	Phe	Pro	Val	Val	Lys	His	Val	Asn	Pro	Lys	Ala	Ser	965	970	975
Asp	Ala	Phe	His	Phe	Phe	Gln	Ser	Gly	Gln	Ala	Lys	Val	Gln	Gln	Gly	980	985	990
Phe	Leu	Lys	Glu	Gly	Cys	Glu	Leu	Ile	Asn	Glu	Ala	Leu	Asn	Leu	Phe	995	1000	1005
Asn	Asn	Val	Tyr	Gly	Ala	Met	His	Val	Glu	Thr	Cys	Ala	Cys	Leu	Arg	1010	1015	1020
Leu	Leu	Ala	Arg	Leu	His	Tyr	Ile	Met	Gly	Asp	Tyr	Ala	Glu	Ala	Leu	1025	1030	1035
Ser	Asn	Gln	Gln	Lys	Ala	Val	Leu	Met	Ser	Glu	Arg	Val	Met	Gly	Thr	1045	1050	1055
Glu	His	Pro	Asn	Thr	Ile	Gln	Glu	Tyr	Met	His	Leu	Ala	Leu	Tyr	Cys	1060	1065	1070
Phe	Ala	Ser	Ser	Gln	Leu	Ser	Thr	Ala	Leu	Ser	Leu	Leu	Tyr	Arg	Ala	1075	1080	1085
Arg	Tyr	Leu	Met	Leu	Leu	Val	Phe	Gly	Glu	Asp	His	Pro	Glu	Met	Ala	1090	1095	1100
Leu	Leu	Asp	Asn	Asn	Ile	Gly	Leu	Val	Leu	His	Gly	Val	Met	Glu	Tyr	1105	1110	1115
Asp	Leu	Ser	Leu	Arg	Phe	Leu	Glu	Asn	Ala	Leu	Ala	Val	Ser	Thr	Lys	1125	1130	1135
Tyr	His	Gly	Pro	Lys	Ala	Leu	Lys	Val	Ala	Leu	Ser	His	His	Leu	Val	1140	1145	1150
Ala	Arg	Val	Tyr	Glu	Ser	Lys	Ala	Glu	Phe	Arg	Ser	Ala	Leu	Gln	His	1155	1160	1165
Glu	Lys	Glu	Gly	Tyr	Thr	Ile	Tyr	Lys	Thr	Gln	Leu	Gly	Glu	Asp	His	1170	1175	1180
Glu	Lys	Thr	Lys	Glu	Ser	Ser	Glu	Tyr	Leu	Lys	Cys	Leu	Thr	Gln	Gln	1185	1190	1195
Ala	Val	Ala	Leu	Gln	Arg	Thr	Met	Asn	Glu	Ile	Tyr	Arg	Asn	Gly	Ser	1205	1210	1215
Ser	Ala	Asn	Ile	Pro	Pro	Leu	Lys	Phe	Thr	Ala	Pro	Ser	Met	Ala	Ser	1220	1225	1230
Val	Leu	Glu	Gln	Leu	Asn	Val	Ile	Asn	Gly	Ile	Leu	Phe	Ile	Pro	Leu	1235	1240	1245
Ser	Gln	Lys	Asp	Leu	Glu	Asn	Leu	Lys	Ala	Glu	Val	Ala	Arg	Arg	His	1250	1255	1260
Gln	Leu	Gln	Glu	Ala	Ser	Arg	Asn	Arg	Asp	Arg	Ala	Glu	Glu	Pro	Met	1265	1270	1275
Ala	Thr	Glu	Pro	Ala	Pro	Ala	Gly	Ala	Pro	Gly	Asp	Leu	Gly	Ser	Gln	1285	1290	1295
Pro	Pro	Ala	Ala	Lys	Asp	Pro	Ser	Pro	Ser	Val	Gln	Gly	*			1300	1305	1309

<210> 1186
 <211> 1207
 <212> PRT
 <213> Homo sapiens

<400> 1186
 Met Leu Leu Thr Leu Ile Ile Leu Leu Pro Val Val Ser Lys Phe Ser
 1 5 10 15
 Phe Val Ser Leu Ser Ala Pro Gln His Trp Ser Cys Pro Glu Gly Thr
 20 25 30
 Leu Ala Gly Asn Gly Asn Ser Thr Cys Val Gly Pro Ala Pro Phe Leu
 35 40 45
 Ile Phe Ser His Gly Asn Ser Ile Phe Arg Ile Asp Thr Glu Gly Thr
 50 55 60
 Asn Tyr Glu Gln Leu Val Val Asp Ala Gly Val Ser Val Ile Met Asp
 65 70 75 80
 Phe His Tyr Asn Glu Lys Arg Ile Tyr Trp Val Asp Leu Glu Arg Gln
 85 90 95
 Leu Leu Gln Arg Val Phe Leu Asn Gly Ser Arg Gln Glu Arg Val Cys
 100 105 110
 Asn Ile Glu Lys Asn Val Ser Gly Met Ala Ile Asn Trp Ile Asn Glu
 115 120 125
 Glu Val Ile Trp Ser Asn Gln Gln Glu Gly Ile Ile Thr Val Thr Asp
 130 135 140
 Met Lys Gly Asn Asn Ser His Ile Leu Leu Ser Ala Leu Lys Tyr Pro
 145 150 155 160
 Ala Asn Val Ala Val Asp Pro Val Glu Arg Phe Ile Phe Trp Ser Ser
 165 170 175
 Glu Val Ala Gly Ser Leu Tyr Arg Ala Asp Leu Asp Gly Val Gly Val
 180 185 190
 Lys Ala Leu Leu Glu Thr Ser Glu Lys Ile Thr Ala Val Ser Leu Asp
 195 200 205
 Val Leu Asp Lys Arg Leu Phe Trp Ile Gln Tyr Asn Arg Glu Gly Ser
 210 215 220
 Asn Ser Leu Ile Cys Ser Cys Asp Tyr Asp Gly Gly Ser Val His Ile
 225 230 235 240
 Ser Lys His Pro Thr Gln His Asn Leu Phe Ala Met Ser Leu Phe Gly
 245 250 255
 Asp Arg Ile Phe Tyr Ser Thr Trp Lys Met Lys Thr Ile Trp Ile Ala
 260 265 270
 Asn Lys His Thr Gly Lys Asp Met Val Arg Ile Asn Leu His Ser Ser
 275 280 285
 Phe Val Pro Leu Gly Glu Leu Lys Val Val His Pro Leu Ala Gln Pro
 290 295 300
 Lys Ala Glu Asp Asp Thr Trp Glu Pro Glu Gln Lys Leu Cys Lys Leu
 305 310 315 320
 Arg Lys Gly Asn Cys Ser Ser Thr Val Cys Gly Gln Asp Leu Gln Ser
 325 330 335
 His Leu Cys Met Cys Ala Glu Gly Tyr Ala Leu Ser Arg Asp Arg Lys
 340 345 350
 Tyr Cys Glu Asp Val Asn Glu Cys Ala Phe Trp Asn His Gly Cys Thr
 355 360 365
 Leu Gly Cys Lys Asn Thr Pro Gly Ser Tyr Tyr Cys Thr Cys Pro Val
 370 375 380
 Gly Phe Val Leu Leu Pro Asp Gly Lys Arg Cys His Gln Leu Val Ser
 385 390 395 400
 Cys Pro Arg Asn Val Ser Glu Cys Ser His Asp Cys Val Leu Thr Ser
 405 410 415
 Glu Gly Pro Leu Cys Phe Cys Pro Glu Gly Ser Val Leu Glu Arg Asp
 420 425 430

2951

Ser Glu Pro Gly Leu Ile Cys Pro Asp Ser Thr Pro Pro Pro His Leu
 945 950 955 960
 Arg Glu Asp Asp His His Tyr Ser Val Arg Asn Ser Asp Ser Glu Cys
 965 970 975
 Pro Leu Ser His Asp Gly Tyr Cys Leu His Asp Gly Val Cys Met Tyr
 980 985 990
 Ile Glu Ala Leu Asp Lys Tyr Ala Cys Asn Cys Val Val Gly Tyr Ile
 995 1000 1005
 Gly Glu Arg Cys Gln Tyr Arg Asp Leu Lys Trp Trp Glu Leu Arg His
 1010 1015 1020
 Ala Gly His Gly Gln Gln Gln Lys Val Ile Val Val Ala Val Cys Val
 1025 1030 1035 1040
 Val Val Leu Val Met Leu Leu Leu Leu Ser Leu Trp Gly Ala His Tyr
 1045 1050 1055
 Tyr Arg Thr Gln Lys Leu Leu Ser Lys Asn Pro Lys Asn Pro Tyr Glu
 1060 1065 1070
 Glu Ser Ser Arg Asp Val Arg Ser Arg Arg Pro Ala Asp Thr Glu Asp
 1075 1080 1085
 Gly Met Ser Ser Cys Pro Gln Pro Trp Phe Val Val Ile Lys Glu His
 1090 1095 1100
 Gln Asp Leu Lys Asn Gly Gly Gln Pro Val Ala Gly Glu Asp Gly Gln
 1105 1110 1115 1120
 Ala Ala Asp Gly Ser Met Gln Pro Thr Ser Trp Arg Gln Glu Pro Gln
 1125 1130 1135
 Leu Cys Gly Met Gly Thr Glu Gln Gly Cys Trp Ile Pro Val Ser Ser
 1140 1145 1150
 Asp Lys Gly Ser Cys Pro Gln Val Met Glu Arg Ser Phe His Met Pro
 1155 1160 1165
 Ser Tyr Gly Thr Gln Thr Leu Glu Gly Gly Val Glu Lys Pro His Ser
 1170 1175 1180
 Leu Leu Ser Ala Asn Pro Leu Trp Gln Gln Arg Ala Leu Asp Pro Pro
 1185 1190 1195 1200
 His Gln Met Glu Leu Thr Gln
 1205 1207

<210> 1187
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 1187
 Met Ala Thr Met Glu Asn Lys Val Ile Cys Ala Leu Val Leu Val Ser
 1 5 10 15
 Met Leu Ala Leu Gly Thr Leu Ala Glu Ala Gln Thr Glu Thr Cys Thr
 20 25 30
 Val Ala Pro Arg Glu Arg Gln Asn Cys Gly Phe Pro Gly Val Thr Pro
 35 40 45
 Ser Gln Cys Ala Asn Lys Gly Cys Cys Phe Asp Asp Thr Val Arg Gly
 50 55 60
 Val Pro Trp Cys Phe Tyr Pro Asn Thr Ile Asp Val Pro Pro Glu Glu
 65 70 75 80
 Glu Cys Glu Phe
 84

<210> 1188
 <211> 558
 <212> PRT
 <213> Homo sapiens

<400> 1188

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Met Ala Lys Ser Asn Gly Glu Asn Gly Pro Arg Ala Pro Ala Ala Gly
 1          5          10          15
Glu Ser Leu Ser Gly Thr Arg Glu Ser Leu Ala Gln Gly Pro Asp Ala
          20          25          30
Ala Thr Thr Asp Glu Leu Ser Ser Leu Gly Ser Asp Ser Glu Ala Asn
          35          40          45
Gly Phe Ala Glu Arg Arg Ile Asp Lys Phe Gly Phe Ile Val Gly Ser
          50          55          60
Gln Gly Ala Glu Gly Ala Ser Ile Leu Gly Gln Thr Val Pro Ser Pro
          65          70          75          80
His Gly Arg Val Gly Glu Gly Pro Pro Ile Arg Ser Tyr Thr Ala Ser
          85          90          95
Ser Thr Gly Thr Gly Asn Arg Leu Glu Val Pro Leu Glu Val Leu
          100          105          110
Arg Gln Arg Glu Ser Lys Trp Leu Asp Met Leu Asn Asn Trp Asp Lys
          115          120          125
Trp Met Ala Lys Lys His Lys Lys Ile Arg Leu Arg Cys Gln Lys Gly
          130          135          140
Ile Pro Pro Ser Leu Arg Gly Arg Ala Trp Gln Tyr Leu Ser Gly Gly
          145          150          155          160
Lys Val Lys Leu Gln Gln Asn Pro Gly Lys Phe Asp Glu Leu Asp Met
          165          170          175
Ser Pro Gly Asp Pro Lys Trp Leu Asp Val Ile Glu Arg Asp Leu His
          180          185          190
Arg Gln Phe Pro Phe His Glu Met Phe Val Ser Arg Gly Gly His Gly
          195          200          205
Gln Gln Asp Leu Phe Arg Val Leu Lys Ala Tyr Thr Leu Tyr Arg Pro
          210          215          220
Glu Glu Gly Tyr Cys Gln Ala Gln Ala Pro Ile Ala Ala Val Leu Leu
          225          230          235          240
Met His Met Pro Ala Glu Gln Ala Phe Trp Cys Leu Val Gln Ile Cys
          245          250          255
Glu Lys Tyr Leu Pro Gly Tyr Tyr Ser Glu Lys Leu Glu Ala Ile Gln
          260          265          270
Leu Asp Gly Glu Ile Leu Phe Ser Leu Leu Gln Lys Val Ser Pro Val
          275          280          285
Ala His Lys His Leu Ser Arg Gln Lys Ile Asp Pro Leu Leu Tyr Met
          290          295          300
Thr Glu Trp Phe Met Cys Ala Phe Ser Arg Thr Leu Pro Trp Ser Ser
          305          310          315          320
Val Leu Arg Val Trp Asp Met Phe Phe Cys Glu Glu Lys Pro Gln Lys
          325          330          335
Ala Ser Leu Tyr Leu Leu Pro Ile Pro His Ala Gly Val Lys Ile Ile
          340          345          350
Phe Arg Val Gly Leu Val Leu Leu Lys His Ala Leu Gly Ser Pro Glu
          355          360          365
Lys Val Lys Ala Cys Gln Gly Gln Tyr Glu Thr Ile Glu Arg Leu Arg
          370          375          380
Ser Leu Ser Pro Lys Ile Met Gln Glu Ala Phe Leu Val Gln Glu Val
          385          390          395          400
Val Glu Leu Pro Val Thr Glu Arg Gln Ile Glu Arg Glu His Leu Ile
          405          410          415
Gln Leu Arg Arg Trp Gln Glu Thr Arg Gly Glu Leu Gln Cys Arg Ser
          420          425          430
Pro Pro Arg Leu His Gly Ala Lys Ala Ile Leu Asp Ala Glu Pro Gly
          435          440          445
Pro Arg Pro Ala Leu Gln Pro Ser Pro Ser Ile Arg Leu Pro Leu Asp
          450          455          460
Ala Pro Leu Pro Gly Ser Lys Ala Lys Pro Lys Pro Pro Lys Gln Ala
          465          470          475          480
Gln Lys Glu Gln Arg Lys Gln Met Lys Gly Arg Gly Gln Leu Glu Lys
          485          490          495

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Pro Pro Ala Pro Asn Gln Ala Met Val Val Ala Ala Ala Gly Asp Ala
 500 505 510
 Cys Pro Pro Gln His Val Pro Pro Lys Asp Ser Ala Pro Lys Asp Ser
 515 520 525
 Ala Pro Gln Asp Leu Ala Pro Gln Val Ser Ala His His Arg Ser Gln
 530 535 540
 Glu Ser Leu Thr Ser Gln Glu Ser Glu Asp Thr Tyr Leu *
 545 550 555 557

<210> 1189
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 1189
 Met Gly Ser Arg Ser Ser His Ala Ala Val Ile Pro Asp Gly Asp Ser
 1 5 10 15
 Ile Arg Arg Glu Thr Gly Phe Ser Gln Ala Ser Leu Leu Arg Leu His
 20 25 30
 His Arg Phe Arg Ala Leu Asp Arg Asn Lys Lys Gly Tyr Leu Ser Arg
 35 40 45
 Met Asp Leu Gln Gln Ile Gly Ala Leu Ala Val Asn Pro Leu Gly Asp
 50 55 60
 Arg Ile Ile Glu Ser Phe Phe Pro Asp Gly Ser Gln Arg Val Asp Phe
 65 70 75 80
 Pro Gly Phe Val Arg Val Leu Ala His Phe Arg Pro Val Glu Asp Glu
 85 90 95
 Asp Thr Glu Thr Gln Asp Pro Lys Lys Pro Glu Pro Leu Asn Ser Arg
 100 105 110
 Arg Asn Lys Leu His Tyr Ala Phe Gln Leu Tyr Asp Leu Asp Arg Asp
 115 120 125
 Gly Lys Ile Ser Arg His Glu Met Leu Gln Val Leu Arg Leu Met Val
 130 135 140
 Gly Val Gln Val Thr Glu Glu Gln Leu Glu Asn Ile Ala Asp Arg Thr
 145 150 155 160
 Val Gln Glu Ala Asp Glu Asp Gly Asp Gly Ala Val Ser Phe Val Glu
 165 170 175
 Phe Thr Lys Ser Leu Glu Lys Met Asp Val Glu Gln Lys Met Ser Ile
 180 185 190
 Arg Ile Leu Lys
 195 196

<210> 1190
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 1190
 Met Ser Thr Leu Ser Asn Phe Thr Gln Thr Leu Glu Asp Val Phe Arg
 1 5 10 15
 Arg Ile Phe Ile Thr Tyr Met Asp Asn Trp Arg Gln Asn Thr Thr Ala
 20 25 30
 Glu Gln Glu Ala Leu Gln Ala Lys Val Asp Ala Glu Asn Phe Tyr Tyr
 35 40 45
 Val Ile Leu Tyr Leu Met Val Met Ile Gly Met Phe Ser Phe Ile Ile
 50 55 60
 Val Ala Ile Leu Val Ser Thr Val Lys Ser Lys Arg Arg Glu His Ser
 65 70 75 80

Asn Asp Pro Tyr His Gln Tyr Ile Val Glu Asp Trp Gln Glu Lys Tyr
 85 90 95
 Lys Ser Gln Ile Leu Asn Leu Glu Glu Ser Lys Ala Thr Ile His Glu
 100 105 110
 Asn Ile Gly Ala Ala Gly Phe Lys Met Ser Pro
 115 120 123

<210> 1191
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 1191
 Met Gly Arg Arg Asp Ala Gln Leu Leu Ala Ala Leu Leu Val Leu Gly
 1 5 10 15
 Leu Cys Ala Leu Ala Gly Ser Glu Lys Pro Ser Pro Cys Gln Cys Ser
 20 25 30
 Arg Leu Ser Pro His Asn Arg Thr Asn Cys Gly Phe Pro Gly Ile Thr
 35 40 45
 Ser Asp Gln Cys Phe Asp Asn Gly Cys Cys Phe Asp Ser Ser Val Thr
 50 55 60
 Gly Val Pro Trp Cys Phe His Pro Leu Pro Lys Gln Glu Ser Asp Gln
 65 70 75 80
 Cys Val Met Glu Val Ser Asp Arg Arg Asn Cys Gly Tyr Pro Gly Ile
 85 90 95
 Ser Pro Glu Glu Cys Ala Ser Arg Lys Cys Cys Phe Ser Asn Phe Ile
 100 105 110
 Phe Glu Val Pro Trp Cys Phe Phe Pro Lys Ser Val Glu Asp Cys His
 115 120 125
 Tyr
 129

<210> 1192
 <211> 68
 <212> PRT
 <213> Homo sapiens

<400> 1192
 Met Val Tyr Tyr Pro Glu Leu Phe Val Trp Val Ser Gln Glu Pro Phe
 1 5 10 15
 Pro Asn Lys Asp Met Glu Gly Arg Leu Pro Lys Gly Arg Leu Pro Val
 20 25 30
 Pro Lys Glu Val Asn Arg Lys Lys Asn Asp Glu Thr Asn Ala Ala Ser
 35 40 45
 Leu Thr Pro Leu Gly Ser Ser Glu Leu Arg Ser Pro Arg Ile Ser Tyr
 50 55 60
 Leu His Phe Phe
 65 68

<210> 1193
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 1193

Met	Ser	Leu	Val	Ile	Pro	Glu	Lys	Phe	Gln	His	Ile	Leu	Arg	Val	Leu
1				5					10					15	
Asn	Thr	Asn	Ile	Asp	Gly	Arg	Arg	Lys	Ile	Ala	Phe	Ala	Ile	Thr	Ala
		20						25					30		
Ile	Lys	Gly	Val	Gly	Arg	Arg	Tyr	Ala	His	Val	Val	Leu	Arg	Lys	Ala
		35					40					45			
Asp	Ile	Asp	Leu	Thr	Lys	Arg	Ala	Gly	Glu	Leu	Thr	Glu	Asp	Glu	Val
	50					55					60				
Glu	Arg	Val	Ile	Thr	Ile	Met	Gln	Asn	Pro	Arg	Gln	Tyr	Lys	Ile	Pro
65					70					75				80	
Asp	Trp	Phe	Leu	Asn	Arg	Gln	Lys	Asp	Val	Lys	Asp	Gly	Lys	Tyr	Ser
			85					90						95	
Gln	Val	Leu	Ala	Asn	Gly	Leu	Asp	Asn	Lys	Leu	Arg	Glu	Asp	Leu	Glu
		100						105					110		
Arg	Leu	Lys	Lys	Ile	Arg	Ala	His	Arg	Gly	Leu	Arg	His	Phe	Trp	Gly
		115					120					125			
Leu	Arg	Val	Arg	Gly	Gln	His	Thr	Lys	Thr	Thr	Gly	Arg	Arg	Gly	Arg
	130					135					140				
Thr	Val	Gly	Val	Ser	Lys	Lys	Lys								
145					150		152								

<210> 1194

<211> 645

<212> PRT

<213> Homo sapiens

<400> 1194

Met	Pro	Arg	Ser	Arg	Gly	Gly	Arg	Ala	Ala	Pro	Gly	Pro	Pro	Pro	Pro
1				5					10					15	
Pro	Pro	Pro	Pro	Gly	Gln	Ala	Pro	Arg	Trp	Ser	Arg	Trp	Arg	Val	Pro
			20					25					30		
Gly	Arg	Leu	Leu	Leu	Leu	Leu	Leu	Pro	Ala	Leu	Cys	Cys	Leu	Pro	Gly
		35				40					45				
Ala	Ala	Arg	Ala	Ala	Ala	Ala	Ala	Ala	Gly	Ala	Gly	Asn	Arg	Ala	Ala
	50					55					60				
Val	Ala	Val	Ala	Val	Ala	Arg	Ala	Asp	Glu	Ala	Glu	Ala	Pro	Phe	Ala
65					70					75				80	
Gly	Gln	Asn	Trp	Leu	Lys	Ser	Tyr	Gly	Tyr	Leu	Leu	Pro	Tyr	Asp	Ser
			85					90						95	
Arg	Ala	Ser	Ala	Leu	His	Ser	Ala	Lys	Ala	Leu	Gln	Ser	Ala	Val	Ser
			100					105					110		
Thr	Met	Gln	Gln	Phe	Tyr	Gly	Ile	Pro	Val	Thr	Gly	Val	Leu	Asp	Gln
	115					120						125			
Thr	Thr	Ile	Glu	Trp	Met	Lys	Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	His
	130					135					140				
Pro	His	Leu	Ser	Arg	Arg	Arg	Arg	Asn	Lys	Arg	Tyr	Ala	Leu	Thr	Gly
145					150				155					160	
Gln	Lys	Trp	Arg	Gln	Lys	His	Ile	Thr	Tyr	Ser	Ile	His	Asn	Tyr	Thr
			165					170						175	
Pro	Lys	Val	Gly	Glu	Leu	Asp	Thr	Arg	Lys	Ala	Ile	Arg	Gln	Ala	Phe
			180					185					190		
Asp	Val	Trp	Gln	Lys	Val	Thr	Pro	Leu	Thr	Phe	Glu	Glu	Val	Pro	Tyr
	195					200					205				
His	Glu	Ile	Lys	Ser	Asp	Arg	Lys	Glu	Ala	Asp	Ile	Met	Ile	Phe	Phe
	210					215					220				
Ala	Ser	Gly	Phe	His	Gly	Asp	Ser	Ser	Pro	Phe	Asp	Gly	Glu	Gly	Gly
225					230					235				240	
Phe	Leu	Ala	His	Ala	Tyr	Phe	Pro	Gly	Pro	Gly	Ile	Gly	Gly	Asp	Thr
			245					250						255	
His	Phe	Asp	Ser	Asp	Glu	Pro	Trp	Thr	Leu	Gly	Asn	Ala	Asn	His	Asp
			260					265					270		

Gly Asn Asp Leu Phe Leu Val Ala Val His Glu Leu Gly His Ala Leu
 275 280 285
 Gly Leu Glu His Ser Ser Asp Pro Ser Ala Ile Met Ala Pro Phe Tyr
 290 295 300
 Gln Tyr Met Glu Thr His Asn Phe Lys Leu Pro Gln Asp Asp Leu Gln
 305 310 315 320
 Gly Ile Gln Lys Ile Tyr Gly Pro Pro Ala Glu Pro Leu Glu Pro Thr
 325 330 335
 Arg Pro Leu Pro Thr Leu Pro Val Arg Arg Ile His Ser Pro Ser Glu
 340 345 350
 Arg Lys His Glu Arg Gln Pro Arg Pro Pro Arg Pro Pro Leu Gly Asp
 355 360 365
 Arg Pro Ser Thr Pro Gly Thr Lys Pro Asn Ile Cys Asp Gly Asn Phe
 370 375 380
 Asn Thr Val Ala Leu Phe Arg Gly Glu Met Phe Val Phe Lys Asp Arg
 385 390 395 400
 Trp Phe Trp Arg Leu Arg Asn Asn Arg Val Gln Glu Gly Tyr Pro Met
 405 410 415
 Gln Ile Glu Gln Phe Trp Lys Gly Leu Pro Ala Arg Ile Asp Ala Ala
 420 425 430
 Tyr Glu Arg Ala Asp Gly Arg Phe Val Phe Phe Lys Gly Asp Lys Tyr
 435 440 445
 Trp Val Phe Lys Glu Val Thr Val Glu Pro Gly Tyr Pro His Ser Leu
 450 455 460
 Gly Glu Leu Gly Ser Cys Leu Pro Arg Glu Gly Ile Asp Thr Ala Leu
 465 470 475 480
 Arg Trp Glu Pro Val Gly Lys Thr Tyr Phe Phe Lys Gly Glu Arg Tyr
 485 490 495
 Trp Arg Tyr Ser Glu Glu Arg Arg Ala Thr Asp Pro Gly Tyr Pro Lys
 500 505 510
 Pro Ile Thr Val Trp Lys Gly Ile Pro Gln Ala Pro Gln Gly Ala Phe
 515 520 525
 Ile Ser Lys Glu Gly Tyr Tyr Thr Tyr Phe Tyr Lys Gly Arg Asp Tyr
 530 535 540
 Trp Lys Phe Asp Asn Gln Lys Leu Ser Val Glu Pro Gly Tyr Pro Arg
 545 550 555 560
 Asn Ile Leu Arg Asp Trp Met Gly Cys Asn Gln Lys Glu Val Glu Arg
 565 570 575
 Arg Lys Glu Arg Arg Leu Pro Gln Asp Asp Val Asp Ile Met Val Thr
 580 585 590
 Ile Asn Asp Val Pro Gly Ser Val Asn Ala Val Ala Val Val Ile Pro
 595 600 605
 Cys Ile Leu Ser Leu Cys Ile Leu Val Leu Val Tyr Thr Ile Phe Gln
 610 615 620
 Phe Lys Asn Lys Thr Gly Pro Gln Pro Val Thr Tyr Tyr Lys Arg Pro
 625 630 635 640
 Val Gln Glu Trp Val
 645

<210> 1195

<211> 526

<212> PRT

<213> Homo sapiens

<400> 1195

Met Ala Ser Gly Pro His Ser Thr Ala Thr Ala Ala Ala Ala Ser
 1 5 10 15
 Ser Ala Ala Pro Ser Ala Gly Gly Ser Ser Gly Thr Thr Thr Thr
 20 25 30
 Thr Thr Thr Thr Thr Gly Gly Ile Leu Ile Gly Asp Arg Leu Tyr Ser
 35 40 45

Glu	Val	Ser	Leu	Thr	Ile	Asp	His	Ser	Leu	Ile	Pro	Glu	Glu	Arg	Leu
50						55					60				
Ser	Pro	Thr	Pro	Ser	Met	Gln	Asp	Gly	Leu	Asp	Leu	Pro	Ser	Glu	Thr
65					70					75					80
Asp	Leu	Arg	Ile	Leu	Gly	Cys	Glu	Leu	Ile	Gln	Ala	Ala	Gly	Ile	Leu
				85						90					95
Leu	Arg	Leu	Pro	Gln	Val	Ala	Met	Ala	Thr	Gly	Gln	Val	Leu	Phe	His
			100					105					110		
Arg	Phe	Phe	Tyr	Ser	Lys	Ser	Phe	Val	Lys	His	Ser	Phe	Glu	Ile	Val
	115						120					125			
Ala	Met	Ala	Cys	Ile	Asn	Leu	Ala	Ser	Lys	Ile	Glu	Glu	Ala	Pro	Arg
	130						135					140			
Arg	Ile	Arg	Asp	Val	Ile	Asn	Val	Phe	His	His	Leu	Arg	Gln	Leu	Arg
145					150					155					160
Gly	Lys	Arg	Thr	Pro	Ser	Pro	Leu	Ile	Leu	Asp	Gln	Asn	Tyr	Ile	Asn
				165						170					175
Thr	Lys	Asn	Gln	Val	Ile	Lys	Ala	Glu	Arg	Arg	Val	Leu	Lys	Glu	Leu
			180					185					190		
Gly	Phe	Cys	Val	His	Val	Lys	His	Pro	His	Lys	Ile	Ile	Val	Met	Tyr
	195						200					205			
Leu	Gln	Val	Leu	Glu	Cys	Glu	Arg	Asn	Gln	Thr	Leu	Val	Gln	Thr	Ala
	210						215				220				
Trp	Asn	Tyr	Met	Asn	Asp	Ser	Leu	Arg	Thr	Asn	Val	Phe	Val	Arg	Phe
225					230					235					240
Gln	Pro	Glu	Thr	Ile	Ala	Cys	Ala	Cys	Ile	Tyr	Leu	Ala	Ala	Arg	Ala
				245					250						255
Leu	Gln	Ile	Pro	Leu	Pro	Thr	Arg	Pro	His	Trp	Phe	Leu	Leu	Phe	Gly
			260					265					270		
Thr	Thr	Glu	Glu	Glu	Ile	Gln	Glu	Ile	Cys	Ile	Glu	Thr	Leu	Arg	Leu
		275					280					285			
Tyr	Thr	Arg	Lys	Lys	Pro	Asn	Tyr	Glu	Leu	Leu	Glu	Lys	Glu	Val	Glu
	290					295					300				
Lys	Arg	Lys	Val	Ala	Leu	Gln	Glu	Ala	Lys	Leu	Lys	Ala	Lys	Gly	Leu
305					310					315					320
Asn	Pro	Asp	Gly	Thr	Pro	Ala	Leu	Ser	Thr	Leu	Gly	Gly	Phe	Ser	Pro
				325					330					335	
Ala	Ser	Lys	Pro	Ser	Ser	Pro	Arg	Glu	Val	Lys	Ala	Glu	Glu	Lys	Ser
			340					345					350		
Pro	Ile	Ser	Ile	Asn	Val	Lys	Thr	Val	Lys	Lys	Glu	Pro	Glu	Asp	Arg
	355						360					365			
Gln	Gln	Ala	Ser	Lys	Ser	Pro	Tyr	Asn	Gly	Val	Arg	Lys	Asp	Ser	Lys
	370					375					380				
Arg	Ser	Arg	Asn	Ser	Arg	Ser	Ala	Ser	Arg	Ser	Arg	Ser	Arg	Thr	Arg
385					390					395					400
Ser	Arg	Ser	Arg	Ser	His	Thr	Pro	Arg	Arg	His	Tyr	Asn	Asn	Arg	Arg
				405					410					415	
Ser	Arg	Ser	Gly	Thr	Tyr	Ser	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser
			420					425				430			
His	Ser	Glu	Ser	Pro	Arg	Arg	His	His	Asn	His	Gly	Ser	Pro	His	Leu
	435						440					445			
Lys	Ala	Lys	His	Thr	Arg	Asp	Asp	Leu	Lys	Ser	Ser	Asn	Arg	His	Gly
	450					455					460				
His	Lys	Arg	Lys	Lys	Ser	Arg	Ser	Arg	Ser	Gln	Ser	Lys	Ser	Arg	Asp
465					470					475					480
His	Ser	Asp	Ala	Ala	Lys	Lys	His	Arg	His	Glu	Arg	Gly	His	His	Arg
			485					490						495	
Asp	Arg	Arg	Glu	Arg	Ser	Arg	Ser	Phe	Glu	Arg	Ser	His	Lys	Ser	Lys
			500					505					510		
His	His	Gly	Gly	Ser	Arg	Ser	Gly	His	Gly	Arg	His	Arg	Arg		
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<211> 1084

<212> PRT

<213> Homo sapiens

<400> 1196

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Met Pro Thr Asn Phe Thr Val Val Pro Val Glu Ala His Ala Asp Gly
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Gly Gly Asp Glu Thr Ala Glu Arg Thr Glu Ala Pro Gly Thr Pro Glu
          20          25          30
Gly Pro Glu Pro Glu Arg Pro Ser Pro Gly Asp Gly Asn Pro Arg Glu
          35          40          45
Asn Ser Pro Phe Leu Asn Asn Val Glu Val Glu Gln Glu Ser Phe Phe
          50          55          60
Glu Gly Lys Asn Met Ala Leu Phe Glu Glu Glu Met Asp Ser Asn Pro
 65          70          75          80
Met Val Ser Ser Leu Leu Asn Lys Leu Ala Asn Tyr Thr Asn Leu Ser
          85          90          95
Gln Gly Val Val Glu His Glu Glu Asp Glu Glu Ser Arg Arg Arg Glu
          100          105          110
Ala Lys Ala Pro Arg Met Gly Thr Phe Ile Gly Val Tyr Leu Pro Cys
          115          120          125
Leu Gln Asn Ile Leu Gly Val Ile Leu Phe Leu Arg Leu Thr Trp Ile
 130          135          140
Val Gly Val Ala Gly Val Leu Glu Ser Phe Leu Ile Val Ala Met Cys
 145          150          155          160
Cys Thr Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala Ile Ala Thr
          165          170          175
Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Tyr Met Ile Ser Arg Ser
          180          185          190
Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe Tyr Leu Gly
          195          200          205
Thr Thr Phe Ala Gly Ala Met Tyr Ile Leu Gly Thr Ile Glu Ile Phe
 210          215          220
Leu Thr Tyr Ile Ser Pro Gly Ala Ala Ile Phe Gln Ala Glu Ala Ala
 225          230          235          240
Gly Gly Glu Ala Ala Ala Met Leu His Asn Met Arg Val Tyr Gly Thr
          245          250          255
Cys Thr Leu Val Leu Met Ala Leu Val Val Phe Val Gly Val Lys Tyr
          260          265          270
Val Asn Lys Leu Ala Leu Val Phe Leu Ala Cys Val Val Leu Ser Ile
          275          280          285
Leu Ala Ile Tyr Ala Gly Val Ile Lys Ser Ala Phe Asp Pro Pro Asp
 290          295          300
Ile Pro Val Cys Leu Leu Gly Asn Arg Thr Leu Ser Arg Arg Ser Phe
 305          310          315          320
Asp Ala Cys Val Lys Ala Tyr Gly Ile His Asn Asn Ser Ala Thr Ser
          325          330          335
Ala Leu Trp Gly Leu Phe Cys Asn Gly Ser Gln Pro Ser Ala Ala Cys
          340          345          350
Asp Glu Tyr Phe Ile Gln Asn Asn Val Thr Glu Ile Gln Gly Ile Pro
          355          360          365
Gly Ala Ala Ser Gly Val Phe Leu Glu Asn Leu Trp Ser Thr Tyr Ala
          370          375          380
His Ala Gly Ala Phe Val Glu Lys Lys Gly Val Pro Ser Val Pro Val
 385          390          395          400
Ala Glu Glu Ser Arg Ala Ser Thr Leu Pro Tyr Val Leu Thr Asp Ile
          405          410          415
Ala Ala Ser Phe Thr Leu Leu Val Gly Ile Tyr Phe Pro Ser Val Thr
          420          425          430
Gly Ile Met Ala Gly Ser Asn Arg Ser Gly Asp Leu Lys Asp Ala Gln
          435          440          445
Lys Ser Ile Pro Thr Gly Thr Ile Leu Ala Ile Val Thr Thr Ser Phe
 450          455          460

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Ile	Tyr	Leu	Ser	Cys	Ile	Val	Leu	Phe	Gly	Ala	Cys	Ile	Glu	Gly	Val
465					470					475					480
Val	Leu	Arg	Asp	Lys	Phe	Gly	Glu	Ala	Leu	Gln	Gly	Asn	Leu	Val	Ile
				485					490					495	
Gly	Met	Leu	Ala	Trp	Pro	Ser	Pro	Trp	Val	Ile	Val	Ile	Gly	Ser	Phe
			500					505					510		
Phe	Ser	Thr	Cys	Gly	Ala	Gly	Leu	Gln	Thr	Leu	Thr	Gly	Ala	Pro	Arg
		515					520					525			
Leu	Leu	Gln	Ala	Ile	Ala	Arg	Asp	Gly	Ile	Val	Pro	Phe	Leu	Gln	Val
	530					535					540				
Phe	Gly	His	Gly	Lys	Ala	Asn	Gly	Glu	Pro	Thr	Trp	Ala	Leu	Leu	Leu
545				550					555						560
Thr	Val	Leu	Ile	Cys	Glu	Thr	Gly	Ile	Leu	Ile	Ala	Ser	Leu	Asp	Ser
				565				570						575	
Val	Ala	Pro	Ile	Leu	Ser	Met	Phe	Phe	Leu	Met	Cys	Tyr	Leu	Phe	Val
			580					585					590		
Asn	Leu	Ala	Cys	Ala	Val	Gln	Thr	Leu	Leu	Arg	Thr	Pro	Asn	Trp	Arg
	595						600					605			
Pro	Arg	Phe	Lys	Phe	Tyr	His	Trp	Thr	Leu	Ser	Phe	Leu	Gly	Met	Ser
	610					615					620				
Leu	Cys	Leu	Ala	Leu	Met	Phe	Ile	Cys	Ser	Trp	Tyr	Tyr	Ala	Leu	Ser
625				630					635						640
Ala	Met	Leu	Ile	Ala	Gly	Cys	Ile	Tyr	Lys	Tyr	Ile	Glu	Tyr	Arg	Gly
				645				650						655	
Ala	Glu	Lys	Glu	Trp	Gly	Asp	Gly	Ile	Arg	Gly	Leu	Ser	Leu	Asn	Ala
			660					665						670	
Ala	Arg	Tyr	Ala	Leu	Leu	Arg	Val	Glu	His	Gly	Pro	Pro	His	Thr	Lys
	675						680					685			
Asn	Trp	Arg	Pro	Gln	Val	Leu	Val	Met	Leu	Asn	Leu	Asp	Ala	Glu	Gln
	690					695					700				
Ala	Val	Lys	His	Pro	Arg	Leu	Leu	Ser	Phe	Thr	Ser	Gln	Leu	Lys	Ala
705				710					715						720
Gly	Lys	Gly	Leu	Thr	Ile	Val	Gly	Ser	Val	Leu	Glu	Gly	Thr	Tyr	Leu
				725					730					735	
Asp	Lys	His	Met	Glu	Ala	Gln	Arg	Ala	Glu	Glu	Asn	Ile	Arg	Ser	Leu
			740					745					750		
Met	Ser	Thr	Glu	Lys	Thr	Lys	Gly	Phe	Cys	Gln	Leu	Val	Val	Ser	Ser
	755						760					765			
Ser	Leu	Arg	Asp	Gly	Met	Ser	His	Leu	Ile	Gln	Ser	Ala	Gly	Leu	Gly
	770					775					780				
Gly	Leu	Lys	His	Asn	Thr	Val	Leu	Met	Ala	Trp	Pro	Ala	Ser	Trp	Lys
785				790					795						800
Gln	Glu	Asp	Asn	Pro	Phe	Ser	Trp	Lys	Asn	Phe	Val	Asp	Thr	Val	Arg
			805						810					815	
Asp	Thr	Thr	Ala	Ala	His	Gln	Ala	Leu	Leu	Val	Ala	Lys	Asn	Val	Asp
			820					825					830		
Ser	Phe	Pro	Gln	Asn	Gln	Glu	Arg	Phe	Gly	Gly	Gly	His	Ile	Asp	Val
	835						840					845			
Trp	Trp	Ile	Val	His	Asp	Gly	Gly	Met	Leu	Met	Leu	Leu	Pro	Phe	Leu
	850					855					860				
Leu	Arg	Gln	His	Lys	Val	Trp	Arg	Lys	Cys	Arg	Met	Arg	Ile	Phe	Thr
865				870					875						880
Val	Ala	Gln	Val	Asp	Asp	Asn	Ser	Ile	Gln	Met	Lys	Lys	Asp	Leu	Gln
			885						890					895	
Met	Phe	Leu	Tyr	His	Leu	Arg	Ile	Ser	Ala	Glu	Val	Glu	Val	Val	Glu
			900					905					910		
Met	Val	Glu	Asn	Asp	Ile	Ser	Ala	Phe	Thr	Tyr	Glu	Arg	Thr	Leu	Met
	915						920					925			
Met	Glu	Gln	Arg	Ser	Gln	Met	Leu	Lys	Gln	Met	Gln	Leu	Ser	Lys	Asn
	930					935						940			
Glu	Gln	Glu	Arg	Glu	Ala	Gln	Leu	Ile	His	Asp	Arg	Asn	Thr	Ala	Ser
945				950					955						960
His	Thr	Ala	Ala	Ala	Ala	Arg	Thr	Gln	Ala	Pro	Pro	Thr	Pro	Asp	Lys
				965					970					975	

Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg
 980 985 990
 Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys
 995 1000 1005
 Pro Asp Gln Ser Asn Val Arg Arg Met His Thr Ala Val Lys Leu Asn
 1010 1015 1020
 Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln Leu Val Leu Leu Asn
 1025 1030 1035 1040
 Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp Glu Asn Tyr Met Glu
 1045 1050 1055
 Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg Val Leu Leu Val Arg
 1060 1065 1070
 Gly Gly Gly Arg Glu Val Ile Thr Ile Tyr Ser *
 1075 1080 1083

<210> 1197
 <211> 908
 <212> PRT
 <213> Homo sapiens

<400> 1197
 Met Thr Ser His Ala Arg Val Arg Lys Leu Gly Ser Ser Arg Ala Ala
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 Ala Glu Pro Gly Ala Gly Pro Ala Arg Glu Pro Ala Arg Leu Cys Gly
 20 25 30
 Tyr Leu Gln Lys Leu Ser Gly Lys Gly Pro Leu Arg Gly Tyr Arg Ser
 35 40 45
 Arg Trp Phe Val Phe Asp Ala Arg Arg Cys Tyr Leu Tyr Tyr Phe Lys
 50 55 60
 Ser Pro Gln Asp Ala Leu Pro Leu Gly His Leu Asp Ile Ala Asp Ala
 65 70 75 80
 Cys Phe Ser Tyr Gln Gly Pro Asp Glu Ala Ala Glu Pro Gly Thr Glu
 85 90 95
 Pro Pro Ala His Phe Gln Val His Ser Ala Gly Ala Val Thr Val Leu
 100 105 110
 Lys Ala Pro Asn Arg Gln Leu Met Thr Tyr Trp Leu Gln Glu Leu Gln
 115 120 125
 Gln Lys Arg Trp Glu Tyr Cys Asn Ser Leu Asp Met Val Lys Trp Asp
 130 135 140
 Ser Arg Thr Ser Pro Thr Pro Gly Asp Phe Pro Lys Gly Leu Val Ala
 145 150 155 160
 Arg Asp Asn Thr Asp Leu Ile Tyr Pro His Pro Asn Ala Ser Ala Glu
 165 170 175
 Lys Ala Arg Asn Val Leu Ala Val Glu Thr Val Pro Gly Glu Leu Val
 180 185 190
 Gly Glu Gln Ala Ala Asn Gln Pro Ala Pro Gly His Pro Asn Ser Ile
 195 200 205
 Asn Phe Tyr Ser Leu Lys Gln Trp Gly Asn Glu Leu Lys Asn Ser Met
 210 215 220
 Ser Ser Phe Arg Pro Gly Arg Gly His Asn Asp Ser Arg Arg Thr Val
 225 230 235 240
 Phe Tyr Thr Asn Glu Glu Trp Glu Leu Leu Asp Pro Thr Pro Lys Asp
 245 250 255
 Leu Glu Glu Ser Ile Val Gln Glu Glu Lys Lys Lys Leu Thr Pro Glu
 260 265 270
 Gly Asn Lys Gly Val Thr Gly Ser Gly Phe Pro Phe Asp Phe Gly Arg
 275 280 285
 Asn Pro Tyr Lys Gly Lys Arg Pro Leu Lys Asp Ile Ile Gly Ser Tyr
 290 295 300
 Lys Asn Arg His Ser Ser Gly Asp Pro Ser Ser Glu Gly Thr Ser Gly
 305 310 315 320

Ser	Gly	Ser	Val	Ser	Ile	Arg	Lys	Pro	Ala	Ser	Glu	Met	Gln	Leu	Gln	325	330	335
Val	Gln	Ser	Gln	Gln	Glu	Glu	Leu	Glu	Gln	Leu	Lys	Lys	Asp	Leu	Ser	340	345	350
Ser	Gln	Lys	Glu	Leu	Val	Arg	Leu	Leu	Gln	Gln	Thr	Val	Arg	Ser	Ser	355	360	365
Gln	Tyr	Asp	Lys	Tyr	Phe	Thr	Ser	Ser	Arg	Leu	Cys	Glu	Gly	Val	Pro	370	375	380
Lys	Asp	Thr	Leu	Glu	Leu	Leu	His	Gln	Lys	Asp	Asp	Gln	Ile	Leu	Gly	385	390	395
Leu	Thr	Ser	Gln	Leu	Glu	Arg	Phe	Ser	Leu	Glu	Lys	Glu	Ser	Leu	Gln	405	410	415
Gln	Glu	Val	Arg	Thr	Leu	Lys	Ser	Lys	Val	Gly	Glu	Leu	Asn	Glu	Gln	420	425	430
Leu	Gly	Met	Leu	Met	Glu	Thr	Ile	Gln	Ala	Lys	Asp	Glu	Val	Ile	Ile	435	440	445
Lys	Leu	Ser	Glu	Gly	Glu	Gly	Asn	Gly	Pro	Pro	Pro	Thr	Val	Ala	Pro	450	455	460
Ser	Ser	Pro	Ser	Val	Val	Pro	Val	Ala	Arg	Asp	Gln	Leu	Glu	Leu	Asp	465	470	475
Arg	Leu	Lys	Asp	Asn	Leu	Gln	Gly	Tyr	Lys	Thr	Gln	Asn	Lys	Phe	Leu	485	490	495
Asn	Lys	Glu	Ile	Leu	Glu	Leu	Ser	Ala	Leu	Arg	Arg	Asn	Ala	Glu	Arg	500	505	510
Arg	Glu	Arg	Asp	Leu	Met	Ala	Lys	Tyr	Ser	Ser	Leu	Glu	Ala	Lys	Leu	515	520	525
Cys	Gln	Ile	Glu	Ser	Lys	Tyr	Leu	Ile	Leu	Leu	Gln	Glu	Met	Lys	Thr	530	535	540
Pro	Val	Cys	Ser	Glu	Asp	Gln	Gly	Pro	Thr	Arg	Glu	Val	Ile	Ala	Gln	545	550	555
Leu	Leu	Glu	Asp	Ala	Leu	Gln	Val	Glu	Ser	Gln	Glu	Gln	Pro	Glu	Gln	565	570	575
Ala	Phe	Val	Lys	Pro	His	Leu	Val	Ser	Glu	Tyr	Asp	Ile	Tyr	Gly	Phe	580	585	590
Arg	Thr	Val	Pro	Glu	Asp	Asp	Glu	Glu	Lys	Leu	Val	Ala	Lys	Val		595	600	605
Arg	Ala	Leu	Asp	Leu	Lys	Thr	Leu	Tyr	Leu	Thr	Glu	Asn	Gln	Glu	Val	610	615	620
Ser	Thr	Gly	Val	Lys	Trp	Glu	Asn	Tyr	Phe	Ala	Ser	Thr	Val	Asn	Arg	625	630	635
Glu	Met	Met	Cys	Ser	Pro	Glu	Leu	Lys	Asn	Leu	Ile	Arg	Ala	Gly	Ile	645	650	655
Pro	His	Glu	His	Arg	Ser	Lys	Val	Trp	Lys	Trp	Cys	Val	Asp	Arg	His	660	665	670
Thr	Arg	Lys	Phe	Lys	Asp	Asn	Thr	Glu	Pro	Gly	His	Phe	Gln	Thr	Leu	675	680	685
Leu	Gln	Lys	Ala	Leu	Glu	Lys	Gln	Asn	Pro	Ala	Ser	Lys	Gln	Ile	Glu	690	695	700
Leu	Asp	Leu	Leu	Arg	Thr	Leu	Pro	Asn	Asn	Lys	His	Tyr	Ser	Cys	Pro	705	710	715
Thr	Ser	Glu	Gly	Ile	Gln	Lys	Leu	Arg	Asn	Val	Leu	Leu	Ala	Phe	Ser	725	730	735
Trp	Arg	Asn	Pro	Asp	Ile	Gly	Tyr	Cys	Gln	Gly	Leu	Asn	Arg	Leu	Val	740	745	750
Ala	Val	Ala	Leu	Leu	Tyr	Leu	Glu	Gln	Glu	Asp	Ala	Phe	Trp	Cys	Leu	755	760	765
Val	Thr	Ile	Val	Glu	Val	Phe	Met	Pro	Arg	Asp	Tyr	Tyr	Thr	Lys	Thr	770	775	780
Leu	Leu	Gly	Ser	Gln	Val	Asp	Gln	Arg	Val	Phe	Arg	Asp	Leu	Met	Ser	785	790	795
Glu	Lys	Leu	Pro	Arg	Leu	His	Gly	His	Phe	Glu	Gln	Tyr	Lys	Val	Asp	805	810	815
Tyr	Thr	Leu	Ile	Thr	Phe	Asn	Trp	Phe	Leu	Val	Val	Phe	Val	Asp	Ser	820	825	830

Val	Val	Ser	Asp	Ile	Leu	Phe	Lys	Ile	Trp	Asp	Ser	Phe	Leu	Tyr	Glu
		835					840					845			
Gly	Pro	Lys	Val	Ile	Phe	Arg	Phe	Ala	Leu	Ala	Leu	Phe	Lys	Tyr	Lys
	850					855					860				
Glu	Glu	Glu	Ile	Leu	Lys	Leu	Gln	Asp	Ser	Met	Ser	Ile	Phe	Lys	Tyr
865					870					875					880
Leu	Arg	Tyr	Phe	Thr	Arg	Thr	Ile	Leu	Asp	Ala	Arg	Ser	Gly	Thr	Asp
				885					890					895	
Ala	Pro	Thr	Thr	Trp	Arg	Lys	Ser	Gly	Trp	Ser	*				
			900					905		907					

<210> 1198

<211> 1368

<212> PRT

<213> Homo sapiens

<400> 1198

Met	Arg	Gln	Lys	Phe	Ala	Met	Ala	Leu	Ala	Ser	Pro	Phe	Gly	Leu	Val
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Glu	Thr	Trp	Arg	Arg	Pro	Asn	Ser	Gln	Leu	Tyr	Arg	Ala	Ser	Ala	Leu
			20					25					30		
Phe	Glu	Thr	Ile	Arg	His	Glu	Ala	Gln	Leu	Ser	Thr	Asp	Tyr	Lys	Leu
		35					40					45			
Ser	Leu	Phe	Asp	Leu	Gln	Thr	Ser	Ser	Tyr	Gln	Ala	Leu	Gln	Arg	Val
	50					55				60					
Leu	Val	Ser	Leu	Gly	His	His	Asp	Glu	Ala	Leu	Ala	Val	Ala	Glu	Arg
65					70					75					80
Gly	Arg	Thr	Arg	Ala	Phe	Ala	Asp	Leu	Leu	Val	Glu	Arg	Gln	Thr	Gly
				85					90					95	
Gln	Gln	Asp	Ser	Asp	Pro	Tyr	Ser	Pro	Val	Thr	Ile	Asp	Gln	Ile	Leu
			100					105					110		
Glu	Met	Val	Asn	Gly	Gln	Arg	Gly	Leu	Val	Leu	Tyr	Tyr	Ser	Leu	Ala
		115					120					125			
Ala	Gly	Tyr	Leu	Tyr	Ser	Trp	Leu	Leu	Ala	Pro	Gly	Ala	Gly	Ile	Val
	130					135					140				
Lys	Phe	His	Glu	His	Tyr	Leu	Gly	Glu	Asn	Thr	Val	Glu	Asn	Ser	Ser
145					150					155					160
Asp	Phe	Gln	Ala	Ser	Ser	Ser	Val	Thr	Leu	Pro	Thr	Ala	Thr	Gly	Ser
				165					170					175	
Ala	Leu	Glu	Gln	His	Ile	Ala	Ser	Val	Arg	Glu	Ala	Leu	Gly	Val	Glu
			180					185					190		
Ser	His	Tyr	Ser	Arg	Ala	Cys	Ala	Ser	Ser	Glu	Thr	Glu	Ser	Glu	Ala
		195					200					205			
Gly	Asp	Ile	Met	Asp	Gln	Gln	Phe	Glu	Glu	Met	Asn	Asn	Lys	Leu	Asn
	210					215					220				
Ser	Val	Thr	Asp	Pro	Thr	Gly	Phe	Leu	Arg	Met	Val	Arg	Arg	Asn	Asn
225					230					235					240
Leu	Phe	Asn	Arg	Ser	Cys	Gln	Ser	Met	Thr	Ser	Leu	Phe	Ser	Asn	Thr
				245					250					255	
Val	Ser	Pro	Thr	Gln	Asp	Gly	Thr	Ser	Ser	Leu	Pro	Arg	Arg	Gln	Ser
			260					265					270		
Ser	Phe	Ala	Lys	Pro	Pro	Leu	Arg	Ala	Leu	Tyr	Asp	Leu	Leu	Ile	Ala
		275					280					285			
Pro	Met	Glu	Gly	Gly	Leu	Met	His	Ser	Ser	Gly	Pro	Val	Gly	Arg	His
	290					295					300				
Arg	Gln	Leu	Ile	Leu	Val	Leu	Glu	Gly	Glu	Leu	Tyr	Leu	Ile	Pro	Phe
305					310					315					320
Ala	Leu	Leu	Lys	Gly	Ser	Ser	Ser	Asn	Glu	Tyr	Leu	Tyr	Glu	Arg	Phe
				325					330					335	
Gly	Leu	Leu	Ala	Val	Pro	Ser	Ile	Arg	Ser	Leu	Ser	Val	Gln	Ser	Lys
			340					345					350		

Ser	His	Leu	Arg	Lys	Asn	Pro	Pro	Thr	Tyr	Ser	Ser	Ser	Thr	Ser	Met
		355					360					365			
Ala	Ala	Val	Ile	Gly	Asn	Pro	Lys	Leu	Pro	Ser	Ala	Val	Met	Asp	Arg
		370				375					380				
Trp	Leu	Trp	Gly	Pro	Met	Pro	Ser	Ala	Glu	Glu	Glu	Ala	Tyr	Met	Val
385					390					395					400
Ser	Glu	Leu	Leu	Gly	Cys	Gln	Pro	Leu	Val	Gly	Ser	Val	Ala	Thr	Lys
				405					410					415	
Glu	Arg	Val	Met	Ser	Ala	Leu	Thr	Gln	Ala	Glu	Cys	Val	His	Phe	Ala
			420					425					430		
Thr	His	Ile	Ser	Trp	Lys	Leu	Ser	Ala	Leu	Val	Leu	Thr	Pro	Ser	Met
		435					440					445			
Asp	Gly	Asn	Pro	Ala	Ser	Ser	Lys	Ser	Ser	Phe	Gly	His	Pro	Tyr	Thr
	450					455					460				
Ile	Pro	Glu	Ser	Leu	Arg	Val	Gln	Asp	Asp	Ala	Ser	Asp	Gly	Glu	Ser
465					470					475					480
Ile	Ser	Asp	Cys	Pro	Pro	Leu	Gln	Glu	Leu	Leu	Leu	Thr	Ala	Ala	Asp
			485					490						495	
Val	Leu	Asp	Leu	Gln	Leu	Pro	Val	Lys	Leu	Val	Val	Leu	Gly	Ser	Ser
			500					505					510		
Gln	Glu	Ser	Asn	Ser	Lys	Val	Ala	Ala	Asp	Gly	Val	Ile	Ala	Leu	Thr
		515					520					525			
Arg	Ala	Phe	Leu	Ala	Ala	Gly	Ala	Gln	Cys	Val	Leu	Val	Ser	Leu	Trp
	530					535					540				
Pro	Val	Pro	Val	Ala	Ala	Phe	Lys	Met	Phe	Ile	His	Ala	Phe	Tyr	Ser
545					550					555					560
Ser	Leu	Leu	Asn	Gly	Leu	Lys	Ala	Ser	Ala	Ala	Leu	Gly	Glu	Ala	Met
			565					570						575	
Lys	Val	Val	Gln	Ser	Ser	Lys	Ala	Phe	Ser	His	Pro	Ser	Asn	Trp	Ala
			580					585					590		
Gly	Phe	Met	Leu	Ile	Gly	Ser	Asp	Val	Lys	Leu	Asn	Ser	Pro	Ser	Ser
		595					600					605			
Leu	Ile	Gly	Gln	Ala	Leu	Thr	Glu	Ile	Leu	Gln	His	Pro	Glu	Arg	Ala
	610					615					620				
Arg	Asp	Ala	Leu	Arg	Val	Leu	Leu	His	Leu	Val	Glu	Lys	Ser	Leu	Gln
625					630					635					640
Arg	Ile	Gln	Asn	Gly	Gln	Arg	Asn	Ala	Met	Tyr	Thr	Ser	Gln	Gln	Ser
			645					650						655	
Val	Glu	Asn	Lys	Val	Gly	Gly	Ile	Pro	Gly	Trp	Gln	Ala	Leu	Leu	Thr
		660						665					670		
Ala	Val	Gly	Phe	Arg	Leu	Asp	Pro	Pro	Thr	Ser	Gly	Leu	Pro	Ala	Ala
		675					680					685			
Val	Phe	Phe	Pro	Thr	Ser	Asp	Pro	Gly	Asp	Arg	Leu	Gln	Gln	Cys	Ser
	690					695					700				
Ser	Thr	Leu	Gln	Ser	Leu	Leu	Gly	Leu	Pro	Asn	Pro	Ala	Leu	Gln	Ala
705					710					715					720
Leu	Cys	Lys	Leu	Ile	Thr	Ala	Ser	Glu	Thr	Gly	Glu	Gln	Leu	Ile	Ser
			725					730						735	
Arg	Ala	Val	Lys	Asn	Met	Val	Gly	Met	Leu	His	Gln	Val	Leu	Val	Gln
			740					745					750		
Leu	Gln	Ala	Gly	Glu	Lys	Glu	Gln	Asp	Leu	Ala	Ser	Ala	Pro	Ile	Gln
		755					760					765			
Val	Ser	Ile	Ser	Val	Gln	Leu	Trp	Arg	Leu	Pro	Gly	Cys	His	Glu	Phe
	770					775					780				
Leu	Ala	Ala	Leu	Gly	Phe	Asp	Leu	Cys	Glu	Val	Gly	Gln	Glu	Glu	Val
785					790				795						800
Ile	Leu	Lys	Thr	Gly	Lys	Gln	Ala	Asn	Arg	Arg	Thr	Val	His	Phe	Ala
			805					810						815	
Leu	Gln	Ser	Leu	Leu	Ser	Leu	Phe	Asp	Ser	Thr	Glu	Leu	Pro	Lys	Arg
		820						825					830		
Leu	Ser	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Glu	Ser	Leu	Ala	Ser	Ala	Gln
		835					840					845			
Ser	Val	Ser	Asn	Ala	Leu	Pro	Leu	Gly	Tyr	Gln	Gln	Pro	Pro	Phe	Ser
	850					855					860				

Pro	Thr	Gly	Ala	Asp	Ser	Ile	Ala	Ser	Asp	Ala	Ile	Ser	Val	Tyr	Ser	865	870	875	880
Leu	Ser	Ser	Ile	Ala	Ser	Ser	Met	Ser	Phe	Val	Ser	Lys	Pro	Glu	Gly		885	890	895
Gly	Ser	Glu	Gly	Gly	Gly	Pro	Gly	Gly	Arg	Gln	Asp	His	Asp	Arg	Ser		900	905	910
Lys	Asn	Ala	Tyr	Leu	Gln	Arg	Ser	Thr	Leu	Pro	Arg	Ser	Gln	Leu	Pro		915	920	925
Pro	Gln	Thr	Arg	Pro	Ala	Gly	Asn	Lys	Asp	Glu	Glu	Glu	Tyr	Glu	Gly		930	935	940
Phe	Ser	Ile	Ile	Ser	Asn	Glu	Pro	Leu	Ala	Thr	Tyr	Gln	Glu	Asn	Arg		945	950	955
Asn	Thr	Cys	Phe	Ser	Pro	Asp	His	Lys	Gln	Pro	Gln	Pro	Gly	Thr	Ala		965	970	975
Gly	Gly	Met	Arg	Val	Ser	Val	Ser	Ser	Lys	Gly	Ser	Ile	Ser	Thr	Pro		980	985	990
Asn	Ser	Pro	Val	Lys	Met	Thr	Leu	Ile	Pro	Ser	Pro	Asn	Ser	Pro	Phe		995	1000	1005
Gln	Lys	Val	Gly	Lys	Leu	Ala	Ser	Ser	Asp	Thr	Gly	Glu	Ser	Asp	Gln		1010	1015	1020
Ser	Ser	Thr	Glu	Thr	Asp	Ser	Thr	Val	Lys	Ser	Gln	Glu	Glu	Ser	Asn	1025	1030	1035	1040
Pro	Lys	Leu	Asp	Pro	Gln	Glu	Leu	Ala	Gln	Lys	Ile	Leu	Glu	Glu	Thr		1045	1050	1055
Gln	Ser	His	Leu	Ile	Ala	Val	Glu	Arg	Leu	Gln	Arg	Ser	Gly	Gly	Gln		1060	1065	1070
Val	Ser	Lys	Ser	Asn	Asn	Pro	Glu	Asp	Gly	Val	Gln	Ala	Pro	Ser	Ser		1075	1080	1085
Thr	Ala	Val	Phe	Arg	Ala	Ser	Glu	Thr	Ser	Ala	Phe	Ser	Arg	Pro	Val		1090	1095	1100
Leu	Ser	His	Gln	Lys	Ser	Gln	Pro	Ser	Pro	Val	Thr	Val	Lys	Pro	Lys	1105	1110	1115	1120
Pro	Pro	Ala	Arg	Ser	Ser	Ser	Leu	Pro	Lys	Val	Ser	Ser	Gly	Tyr	Ser		1125	1130	1135
Ser	Pro	Thr	Thr	Ser	Glu	Met	Ser	Ile	Lys	Asp	Ser	Pro	Ser	Gln	His		1140	1145	1150
Ser	Gly	Arg	Pro	Ser	Pro	Gly	Cys	Asp	Ser	Gln	Thr	Ser	Gln	Leu	Asp		1155	1160	1165
Gln	Pro	Leu	Phe	Lys	Leu	Lys	Tyr	Pro	Ser	Ser	Pro	Tyr	Ser	Ala	His		1170	1175	1180
Ile	Ser	Lys	Ser	Pro	Arg	Asn	Met	Ser	Pro	Ser	Ser	Gly	His	Gln	Ser	1185	1190	1195	1200
Pro	Ala	Gly	Ser	Ala	Pro	Ser	Pro	Ala	Leu	Ser	Tyr	Ser	Ser	Ala	Gly		1205	1210	1215
Ser	Ala	Arg	Ser	Ser	Pro	Ala	Asp	Ala	Pro	Asp	Ile	Asp	Lys	Leu	Lys		1220	1225	1230
Met	Ala	Ala	Ile	Asp	Glu	Lys	Val	Gln	Ala	Val	His	Asn	Leu	Lys	Met		1235	1240	1245
Phe	Trp	Gln	Ser	Thr	Pro	Gln	His	Ser	Thr	Gly	Pro	Met	Lys	Ile	Phe		1250	1255	1260
Arg	Gly	Ala	Pro	Gly	Thr	Met	Thr	Ser	Lys	Arg	Asp	Val	Leu	Ser	Leu	1265	1270	1275	1280
Leu	Asn	Leu	Ser	Pro	Arg	His	Asn	Lys	Lys	Glu	Glu	Gly	Val	Asp	Lys		1285	1290	1295
Leu	Glu	Leu	Lys	Glu	Leu	Ser	Leu	Gln	Gln	His	Asp	Gly	Ala	Pro	Pro		1300	1305	1310
Lys	Ala	Pro	Pro	Asn	Gly	His	Trp	Arg	Thr	Glu	Thr	Thr	Ser	Leu	Gly		1315	1320	1325
Ser	Leu	Pro	Leu	Pro	Ala	Gly	Pro	Pro	Ala	Thr	Ala	Pro	Ala	Arg	Pro		1330	1335	1340
Leu	Arg	Leu	Pro	Ser	Gly	Asn	Gly	Tyr	Lys	Phe	Leu	Ser	Pro	Gly	Arg	1345	1350	1355	1360
Phe	Phe	Pro	Ser	Ser	Lys	Cys	*										1365	1367	

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 <212> PRT
 <213> Homo sapiens

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 1 5 10 15
 Gly Glu Asn Val Thr Leu Gln Pro Leu Glu Val Ala Glu Gly Ser Pro
 20 25 30
 Leu Tyr Pro Gly Ser Asp Gly Thr Leu Ser Pro Cys Gln Asp Gln Met
 35 40 45
 Pro Pro Glu Ala Gly Ser Asp Ser Ser Gly Glu Glu His Val Leu Ala
 50 55 60
 Pro Pro Gly Leu Gln Pro Pro His Cys Pro Gly Gln Cys Leu Ile Trp
 65 70 75 80
 Ala Cys Lys Thr Cys Lys Arg Lys Ser Ala Pro Thr Asp Arg Arg Lys
 85 90 95
 Ala Ala Thr Leu Arg Glu Arg Arg Arg Leu Lys Lys Ile Asn Glu Ala
 100 105 110
 Phe Glu Ala Leu Lys Arg Arg Thr Val Ala Asn Pro Asn Gln Arg Leu
 115 120 125
 Pro Lys Val Glu Ile Leu Arg Ser Ala Ile Ser Tyr Ile Glu Arg Leu
 130 135 140
 Gln Asp Leu Leu His Arg Leu Asp Gln Gln Glu Lys Met Gln Glu Leu
 145 150 155 160
 Gly Val Asp Pro Phe Ser Tyr Arg Pro Lys Gln Glu Asn Leu Glu Gly
 165 170 175
 Ala Asp Phe Leu Arg Thr Cys Ser Ser Gln Trp Pro Ser Val Ser Asp
 180 185 190
 His Ser Arg Gly Leu Val Ile Thr Ala Lys Glu Gly Gly Ala Ser Ile
 195 200 205
 Asp Ser Ser Ala Ser Ser Ser Leu Arg Cys Leu Ser Ser Ile Val Asp
 210 215 220
 Ser Ile Ser Ser Glu Glu Arg Lys Leu Pro Cys Val Glu Glu Val Val
 225 230 235 240
 Glu Lys
 242

<210> 1200
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 1200
 Met Lys Phe Asn Pro Phe Val Thr Ser Asp Arg Ser Lys Asn Arg Lys
 1 5 10 15
 Arg His Phe Asn Ala Pro Ser His Val Arg Arg Lys Ile Met Ser Ser
 20 25 30
 Pro Leu Ser Lys Glu Leu Arg Gln Lys Tyr Asn Val Arg Ser Met Pro
 35 40 45
 Ile Arg Lys Asp Asp Glu Val Gln Val Val Arg Gly His Tyr Lys Gly
 50 55 60
 Gln Gln Ile Gly Lys Val Val Gln Val Tyr Arg Lys Lys Tyr Val Ile
 65 70 75 80
 Tyr Ile Glu Arg Val Gln Arg Glu Lys Ala Asn Gly Thr Thr Val His
 85 90 95

Val Gly Ile His Pro Ser Lys Val Val Ile Thr Arg Leu Lys Leu Asp
 100 105 110
 Lys Asp Arg Lys Lys Ile Leu Glu Arg Lys Ala Lys Ser Arg Gln Val
 115 120 125
 Gly Lys Glu Lys Gly Lys Tyr Lys Glu Glu Leu Ile Glu Lys Met Gln
 130 135 140
 Glu
 145

<210> 1201
 <211> 977
 <212> PRT
 <213> Homo sapiens

<400> 1201
 Met Asp Ile Tyr Asp Thr Gln Thr Leu Gly Val Val Val Phe Gly Gly
 1 5 10 15
 Phe Met Val Val Ser Ala Ile Gly Ile Phe Leu Val Ser Thr Phe Ser
 20 25 30
 Met Lys Glu Thr Ser Tyr Glu Glu Ala Leu Ala Asn Gln Arg Lys Glu
 35 40 45
 Met Ala Lys Thr His His Gln Lys Val Glu Lys Lys Lys Lys Glu Lys
 50 55 60
 Thr Val Glu Lys Lys Gly Lys Thr Lys Lys Lys Glu Glu Lys Pro Asn
 65 70 75 80
 Gly Lys Ile Pro Asp His Asp Pro Ala Pro Asn Val Thr Val Leu Leu
 85 90 95
 Arg Glu Pro Val Arg Ala Pro Ala Val Ala Val Ala Pro Thr Pro Val
 100 105 110
 Gln Pro Pro Ile Ile Val Ala Pro Val Ala Thr Val Pro Ala Met Pro
 115 120 125
 Gln Glu Lys Leu Ala Ser Ser Pro Lys Asp Lys Lys Lys Lys Glu Lys
 130 135 140
 Lys Val Ala Lys Val Glu Pro Ala Val Ser Ser Val Val Asn Ser Ile
 145 150 155 160
 Gln Val Leu Thr Ser Lys Ala Ala Ile Leu Glu Thr Ala Pro Lys Glu
 165 170 175
 Gly Arg Asn Thr Asp Val Ala Gln Ser Pro Glu Ala Pro Lys Gln Glu
 180 185 190
 Ala Pro Ala Lys Lys Lys Ser Gly Ser Lys Lys Lys Gly Pro Pro Asp
 195 200 205
 Ala Asp Gly Pro Leu Tyr Leu Pro Tyr Lys Thr Leu Val Ser Thr Val
 210 215 220
 Gly Ser Met Val Phe Asn Glu Gly Glu Ala Gln Arg Leu Ile Glu Ile
 225 230 235 240
 Leu Ser Glu Lys Ala Gly Ile Ile Gln Asp Thr Trp His Lys Ala Thr
 245 250 255
 Gln Lys Gly Asp Pro Val Ala Ile Leu Lys Arg Gln Leu Glu Glu Lys
 260 265 270
 Glu Lys Leu Leu Ala Thr Glu Gln Glu Asp Ala Ala Val Ala Lys Ser
 275 280 285
 Lys Leu Arg Glu Leu Asn Lys Glu Met Ala Ala Glu Lys Ala Lys Ala
 290 295 300
 Ala Ala Gly Glu Ala Lys Val Lys Lys Gln Leu Val Ala Arg Glu Gln
 305 310 315 320
 Glu Ile Thr Ala Val Gln Ala Arg Met Gln Ala Ser Tyr Arg Glu His
 325 330 335
 Val Lys Glu Val Gln Gln Leu Gln Gly Lys Ile Arg Thr Leu Gln Glu
 340 345 350
 Gln Leu Glu Asn Gly Pro Asn Thr Gln Leu Ala Arg Leu Gln Gln Glu
 355 360 365

Asn	Ser	Ile	Leu	Arg	Asp	Ala	Leu	Asn	Gln	Ala	Thr	Ser	Gln	Val	Glu
370						375					380				
Ser	Lys	Gln	Asn	Ala	Glu	Leu	Ala	Lys	Leu	Arg	Gln	Glu	Leu	Ser	Lys
385					390					395					400
Val	Ser	Lys	Glu	Leu	Val	Glu	Lys	Ser	Glu	Ala	Val	Arg	Gln	Asp	Glu
				405					410					415	
Gln	Gln	Arg	Lys	Ala	Leu	Glu	Ala	Lys	Ala	Ala	Ala	Phe	Glu	Lys	Gln
			420					425					430		
Val	Leu	Gln	Leu	Gln	Ala	Ser	His	Arg	Glu	Ser	Glu	Glu	Ala	Leu	Gln
	435					440					445				
Lys	Arg	Leu	Asp	Glu	Val	Ser	Arg	Glu	Leu	Cys	His	Thr	Gln	Ser	Ser
450						455					460				
His	Ala	Ser	Leu	Arg	Ala	Asp	Ala	Glu	Lys	Ala	Gln	Glu	Gln	Gln	Gln
465					470					475					480
Gln	Met	Ala	Glu	Leu	His	Ser	Lys	Leu	Gln	Ser	Ser	Glu	Ala	Glu	Val
			485						490					495	
Arg	Ser	Lys	Cys	Glu	Glu	Leu	Ser	Gly	Leu	His	Gly	Gln	Leu	Gln	Glu
			500					505					510		
Ala	Arg	Ala	Glu	Asn	Ser	Gln	Leu	Thr	Glu	Arg	Ile	Arg	Ser	Ile	Glu
	515						520					525			
Ala	Leu	Leu	Glu	Ala	Gly	Gln	Ala	Arg	Asp	Ala	Gln	Asp	Val	Gln	Ala
530					535					540					
Ser	Gln	Ala	Glu	Ala	Asp	Gln	Gln	Gln	Thr	Arg	Leu	Lys	Glu	Leu	Glu
545					550					555					560
Ser	Gln	Val	Ser	Gly	Leu	Glu	Lys	Glu	Ala	Ile	Glu	Leu	Arg	Glu	Ala
				565					570					575	
Val	Glu	Gln	Gln	Lys	Val	Lys	Asn	Asn	Asp	Leu	Arg	Glu	Lys	Asn	Trp
			580					585					590		
Lys	Ala	Met	Glu	Ala	Leu	Ala	Thr	Ala	Glu	Gln	Ala	Cys	Lys	Glu	Lys
	595						600					605			
Leu	His	Ser	Leu	Thr	Gln	Ala	Lys	Glu	Glu	Ser	Glu	Lys	Gln	Leu	Cys
610					615						620				
Leu	Ile	Glu	Ala	Gln	Thr	Met	Glu	Ala	Leu	Leu	Ala	Leu	Leu	Pro	Glu
625					630					635					640
Leu	Ser	Val	Leu	Ala	Gln	Gln	Asn	Tyr	Thr	Glu	Trp	Leu	Gln	Asp	Leu
				645					650					655	
Lys	Glu	Lys	Gly	Pro	Thr	Leu	Leu	Lys	His	Pro	Pro	Ala	Pro	Ala	Glu
			660					665					670		
Pro	Ser	Ser	Asp	Leu	Ala	Ser	Lys	Leu	Arg	Glu	Ala	Glu	Glu	Thr	Gln
	675						680					685			
Ser	Thr	Leu	Gln	Ala	Glu	Cys	Asp	Gln	Tyr	Arg	Ser	Ile	Leu	Ala	Glu
690					695						700				
Thr	Glu	Gly	Met	Leu	Arg	Asp	Leu	Gln	Lys	Ser	Val	Glu	Glu	Glu	Glu
705					710					715					720
Gln	Val	Trp	Arg	Ala	Lys	Val	Gly	Ala	Ala	Glu	Glu	Glu	Leu	Gln	Lys
				725					730					735	
Ser	Arg	Val	Thr	Val	Lys	His	Leu	Glu	Glu	Ile	Val	Glu	Lys	Leu	Lys
			740					745					750		
Gly	Glu	Leu	Glu	Ser	Ser	Asp	Gln	Val	Arg	Glu	His	Thr	Ser	His	Leu
	755						760					765			
Glu	Ala	Glu	Leu	Glu	Lys	His	Met	Ala	Ala	Ala	Ser	Ala	Glu	Cys	Gln
770					775						780				
Asn	Tyr	Ala	Lys	Glu	Val	Ala	Gly	Leu	Arg	Gln	Leu	Leu	Leu	Glu	Ser
785					790					795					800
Gln	Ser	Gln	Leu	Asp	Ala	Ala	Lys	Ser	Glu	Ala	Gln	Lys	Gln	Ser	Asp
			805						810					815	
Glu	Leu	Ala	Leu	Val	Arg	Gln	Gln	Leu	Ser	Glu	Met	Lys	Ser	His	Val
			820					825					830		
Glu	Asp	Gly	Asp	Ile	Ala	Gly	Ala	Pro	Ala	Ser	Ser	Pro	Glu	Ala	Pro
	835						840					845			
Pro	Ala	Glu	Gln	Asp	Pro	Val	Gln	Leu	Lys	Thr	Gln	Leu	Glu	Trp	Thr
850					855						860				
Glu	Ala	Ile	Leu	Glu	Asp	Glu	Gln	Thr	Gln	Arg	Gln	Lys	Leu	Thr	Ala
865					870					875					880

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<210> 1202
<211> 881
<212> PRT
<213> Homo sapiens
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2969

Leu	Asp	Trp	Ala	Cys	Ser	Met	Ala	Glu	Ile	Leu	Arg	Ser	Leu	Asn	Ser		
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Ala	Pro	Leu	Trp	Arg	Asp	Val	Ile	Ala	Thr	Phe	Thr	Asp	His	Cys	Ile		
			340					345					350				
Lys	Gln	Leu	Pro	Phe	Gln	Leu	Lys	His	Thr	Asn	Ile	Phe	Thr	Leu	Leu		
		355					360					365					
Val	Leu	Val	Gly	Phe	Pro	Gln	Val	Leu	Cys	Val	Gly	Thr	Arg	Cys	Val		
	370					375					380						
Tyr	Met	Asp	Asn	Ala	Asn	Glu	Pro	His	Asn	Val	Ile	Ile	Leu	Lys	His		
385					390					395					400		
Phe	Thr	Glu	Lys	Asn	Arg	Ala	Val	Ile	Val	Asp	Val	Lys	Thr	Arg	Lys		
				405					410					415			
Arg	Lys	Thr	Val	Lys	Asp	Tyr	Gln	Leu	Val	Gln	Lys	Gly	Gly	Gly	Gln		
			420					425					430				
Glu	Cys	Gly	Asp	Ser	Arg	Ala	Gln	Leu	Ser	Gln	Tyr	Ser	Gln	His	Phe		
		435					440					445					
Ala	Phe	Ile	Ala	Ser	His	Leu	Leu	Gln	Ser	Ser	Met	Asp	Ser	His	Cys		
	450					455					460						
Pro	Glu	Ala	Val	Glu	Ala	Thr	Trp	Val	Leu	Ser	Leu	Ala	Leu	Lys	Gly		
465					470					475					480		
Leu	Tyr	Lys	Thr	Leu	Lys	Ala	His	Gly	Phe	Glu	Glu	Ile	Arg	Ala	Thr		
				485				490						495			
Phe	Leu	Gln	Thr	Asp	Leu	Leu	Lys	Leu	Leu	Val	Lys	Lys	Cys	Ser	Lys		
			500				505						510				
Gly	Thr	Gly	Phe	Ser	Lys	Thr	Trp	Leu	Leu	Arg	Asp	Leu	Glu	Ile	Leu		
		515					520					525					
Ser	Ile	Met	Leu	Tyr	Ser	Ser	Lys	Lys	Glu	Ile	Asn	Ala	Leu	Ala	Glu		
	530					535					540						
His	Gly	Asp	Leu	Glu	Leu	Asp	Glu	Arg	Gly	Asp	Arg	Glu	Glu	Glu	Val		
545					550				555						560		
Glu	Arg	Pro	Val	Ser	Ser	Pro	Gly	Asp	Pro	Glu	Gln	Lys	Lys	Leu	Asp		
				565			570							575			
Pro	Leu	Glu	Gly	Leu	Asp	Glu	Pro	Thr	Arg	Ile	Cys	Phe	Leu	Met	Ala		
			580				585						590				
His	Asp	Ala	Leu	Asn	Ala	Pro	Leu	His	Ile	Leu	Arg	Ala	Ile	Tyr	Glu		
	595					600						605					
Leu	Gln	Met	Lys	Lys	Thr	Asp	Tyr	Phe	Phe	Leu	Glu	Val	Gln	Lys	Arg		
	610					615					620						
Phe	Asp	Gly	Asp	Glu	Leu	Thr	Thr	Asp	Glu	Arg	Ile	Arg	Ser	Leu	Ala		
625					630				635						640		
Gln	Arg	Trp	Gln	Pro	Ser	Lys	Ser	Leu	Arg	Leu	Glu	Glu	Gln	Ser	Ala		
				645				650						655			
Lys	Ala	Val	Asp	Thr	Asp	Met	Ile	Ile	Leu	Pro	Cys	Leu	Ser	Arg	Pro		
			660				665						670				
Ala	Arg	Cys	Asp	Gln	Ala	Thr	Ala	Glu	Ser	Asn	Pro	Val	Thr	Gln	Lys		
		675					680					685					
Leu	Ile	Ser	Ser	Thr	Glu	Ser	Glu	Leu	Gln	Gln	Ser	Tyr	Ala	Lys	Gln		
	690					695					700						
Arg	Arg	Ser	Lys	Ser	Ala	Ala	Leu	Leu	His	Lys	Glu	Leu	Asn	Cys	Lys		
705					710					715					720		
Ser	Lys	Arg	Ala	Val	Arg	Asp	Tyr	Leu	Phe	Arg	Val	Asn	Glu	Ala	Thr		
				725				730						735			
Ala	Val	Leu	Tyr	Ala	Arg	His	Val	Leu	Ala	Ser	Leu	Leu	Ala	Glu	Trp		
			740					745					750				
Pro	Ser	His	Val	Pro	Val	Ser	Glu	Asp	Ile	Leu	Glu	Leu	Ser	Gly	Pro		
		755					760					765					
Ala	His	Met	Thr	Tyr	Ile	Leu	Asp	Met	Phe	Met	Gln	Leu	Glu	Glu	Lys		
	770					775					780						
His	Glu	Trp	Glu	Lys	Val	Val	Met	Gln	Thr	Glu	Leu	Val	Leu	Thr	His		
785					790					795					800		
Gln	Val	Leu	Pro	Leu	Pro	His	Arg	Leu	Pro	Pro	Val	Ser	Ala	Ser	Trp		
				805				810						815			
Ser	Glu	Ala	Thr	Cys	Val	Ala	Val	Gln	Leu	Pro	Asp	Arg	Cys	Glu	Cys		
			820					825					830				

Ser Lys Gly Arg Val Thr Val Ser Ser Pro Lys Asp Trp Ala Ser Glu
 835 840 845
 Glu Leu Arg Gly Pro Glu Arg Asp Phe Gln Leu Asn Gln Lys Ala Leu
 850 855 860
 Ser Pro Ser Ser Gln Phe Pro Ser Ala Glu Ile Leu Arg His Ile Arg
 865 870 875 880
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<210> 1203
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 1203
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 1 5 10 15
 Leu Tyr Gln Ala Ala His Cys Val Leu Ala Gln Asp Pro Glu Asn Gln
 20 25 30
 Ala Leu Ala Arg Phe Tyr Cys Tyr Thr Glu Arg Thr Ile Ala Lys Arg
 35 40 45
 Leu Val Leu Arg Arg Asp Pro Ser Val Lys Arg Thr Leu Cys Arg Gly
 50 55 60
 Cys Ser Ser Leu Leu Val Pro Gly Leu Thr Cys Thr Gln Arg Gln Arg
 65 70 75 80
 Arg Cys Arg Gly Gln Arg Trp Thr Val Gln Thr Cys Leu Thr Cys Gln
 85 90 95
 Arg Ser Gln Arg Phe Leu Asn Asp Pro Gly His Leu Leu Trp Gly Asp
 100 105 110
 Arg Pro Glu Ala Gln Leu Gly Ser Gln Ala Asp Ser Lys Pro Leu Gln
 115 120 125
 Pro Leu Pro Asn Thr Ala His Ser Ile Ser Asp Arg Leu Pro Glu Glu
 130 135 140
 Lys Met Gln Thr Gln Gly Ser Ser Asn Gln
 145 150 154

<210> 1204
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 1204
 Met Ser Gln Tyr Ala Pro Ser Pro Asp Phe Lys Arg Ala Leu Asp Ser
 1 5 10 15
 Ser Pro Glu Ala Asn Thr Glu Asp Asp Lys Thr Glu Glu Asp Val Pro
 20 25 30
 Met Pro Lys Asn Tyr Leu Trp Leu Thr Ile Val Ser Cys Phe Cys Pro
 35 40 45
 Ala Tyr Pro Ile Asn Ile Val Ala Leu Val Phe Ser Ile Met Ser Leu
 50 55 60
 Asn Ser Tyr Asn Asp Gly Asp Tyr Glu Gly Ala Arg Arg Leu Gly Arg
 65 70 75 80
 Asn Ala Lys Trp Val Ala Ile Ala Ser Ile Ile Ile Gly Leu Leu Ile
 85 90 95
 Ile Gly Ile Ser Cys Ala Val His Phe Thr Arg Asn Ala
 100 105 109

<210> 1205
 <211> 1359
 <212> PRT
 <213> Homo sapiens

<400> 1205
 Glu Gln Gly Pro Arg Arg Ala Gly Arg Ile Trp Gly Gly Ser Gly Gly
 1 5 10 15
 Cys Arg Arg Arg Ala Trp Thr Ser Arg Trp Leu Gln Arg Arg Arg Ser
 20 25 30
 Pro Glu Ser Cys Glu Ala Pro Leu Ser Ala Pro Leu Trp Gly Pro Gln
 35 40 45
 Arg Gly Leu Pro Gly Arg Glu Pro Leu Arg Ser Arg Ser Ala Ser Ala
 50 55 60
 Ile Ala Leu Arg Thr Ile Gly His Ile Leu Ala Leu Leu Leu Arg Leu
 65 70 75 80
 Leu His Leu Gly Leu Gly Ser Gly Gly Cys Arg Glu Asp Val Pro Pro
 85 90 95
 Ser Gly Arg Gly Lys Lys Glu Glu Lys Met Lys Lys His Arg Arg Ala
 100 105 110
 Leu Ala Leu Val Ser Cys Leu Phe Leu Cys Ser Leu Val Trp Leu Pro
 115 120 125
 Ser Trp Arg Val Cys Cys Lys Glu Ser Ser Ser Ala Ser Ala Ser Ser
 130 135 140
 Tyr Tyr Ser Gln Asp Asp Asn Cys Ala Leu Glu Asn Glu Asp Val Gln
 145 150 155 160
 Phe Gln Lys Lys Asp Glu Arg Glu Gly Pro Ile Asn Ala Glu Ser Leu
 165 170 175
 Gly Lys Ser Gly Ser Asn Leu Pro Ile Ser Pro Lys Glu His Lys Leu
 180 185 190
 Lys Asp Asp Ser Ile Val Asp Val Gln Asn Thr Glu Ser Lys Lys Leu
 195 200 205
 Ser Pro Pro Val Val Glu Thr Leu Pro Thr Val Asp Leu His Glu Glu
 210 215 220
 Ser Ser Asn Ala Val Val Asp Ser Glu Thr Val Glu Asn Ile Ser Ser
 225 230 235 240
 Ser Ser Thr Ser Glu Ile Thr Pro Ile Ser Lys Leu Asp Glu Ile Glu
 245 250 255
 Lys Ser Gly Thr Ile Pro Ile Ala Lys Pro Ser Glu Thr Glu Gln Ser
 260 265 270
 Glu Thr Asp Cys Asp Val Gly Glu Ala Leu Asp Ala Ser Ala Pro Ile
 275 280 285
 Glu Gln Pro Ser Phe Val Ser Pro Pro Asp Ser Leu Val Gly Gln His
 290 295 300
 Ile Glu Asn Val Ser Ser Ser His Gly Lys Gly Lys Ile Thr Lys Ser
 305 310 315 320
 Glu Phe Glu Ser Lys Val Ser Ala Ser Glu Gln Gly Gly Gly Asp Pro
 325 330 335
 Lys Ser Ala Leu Asn Ala Ser Asp Asn Leu Lys Asn Glu Ser Ser Asp
 340 345 350
 Tyr Thr Lys Pro Gly Asp Ile Asp Pro Thr Ser Val Ala Ser Pro Lys
 355 360 365
 Asp Pro Glu Asp Ile Pro Thr Phe Asp Glu Trp Lys Lys Lys Val Met
 370 375 380
 Glu Val Glu Lys Glu Lys Ser Gln Ser Met His Ala Ser Ser Asn Gly
 385 390 395 400
 Gly Ser His Ala Thr Lys Lys Val Gln Lys Asn Arg Asn Asn Tyr Ala
 405 410 415
 Ser Val Glu Cys Gly Ala Lys Ile Leu Ala Ala Asn Pro Glu Ala Lys
 420 425 430
 Ser Thr Ser Ala Ile Leu Ile Glu Asn Met Asp Leu Tyr Met Leu Asn
 435 440 445

Pro	Cys	Ser	Thr	Lys	Ile	Trp	Phe	Val	Ile	Glu	Leu	Cys	Glu	Pro	Ile
450						455					460				
Gln	Val	Lys	Gln	Leu	Asp	Ile	Ala	Asn	Tyr	Glu	Leu	Phe	Ser	Ser	Thr
465					470					475					480
Pro	Lys	Asp	Phe	Leu	Val	Ser	Ile	Ser	Asp	Arg	Tyr	Pro	Thr	Asn	Lys
				485					490					495	
Trp	Ile	Lys	Leu	Gly	Thr	Phe	His	Gly	Arg	Asp	Glu	Arg	Asn	Val	Gln
			500					505					510		
Ser	Phe	Pro	Leu	Asp	Glu	Gln	Met	Tyr	Ala	Lys	Tyr	Val	Lys	Met	Phe
		515				520						525			
Ile	Lys	Tyr	Ile	Lys	Val	Glu	Leu	Leu	Ser	His	Phe	Gly	Ser	Glu	His
	530					535					540				
Phe	Cys	Pro	Leu	Ser	Leu	Ile	Arg	Val	Phe	Gly	Thr	Ser	Met	Val	Glu
545					550					555					560
Glu	Tyr	Glu	Glu	Ile	Ala	Asp	Ser	Gln	Tyr	His	Ser	Glu	Arg	Gln	Glu
				565					570					575	
Leu	Phe	Asp	Glu	Asp	Tyr	Asp	Tyr	Pro	Leu	Asp	Tyr	Asn	Thr	Gly	Glu
			580					585					590		
Asp	Lys	Ser	Ser	Lys	Asn	Leu	Leu	Gly	Ser	Ala	Thr	Asn	Ala	Ile	Leu
		595				600						605			
Asn	Met	Val	Asn	Ile	Ala	Ala	Asn	Ile	Leu	Gly	Ala	Lys	Thr	Glu	Asp
	610					615					620				
Leu	Thr	Glu	Gly	Asn	Lys	Ser	Ile	Ser	Glu	Asn	Ala	Thr	Ala	Thr	Ala
625					630					635					640
Ala	Pro	Lys	Met	Pro	Glu	Ser	Thr	Pro	Val	Ser	Thr	Pro	Val	Pro	Ser
				645					650					655	
Pro	Glu	Tyr	Val	Thr	Thr	Glu	Val	His	Thr	His	Asp	Met	Glu	Pro	Ser
			660					665					670		
Thr	Pro	Asp	Thr	Pro	Lys	Glu	Ser	Pro	Ile	Val	Gln	Leu	Val	Gln	Glu
		675				680						685			
Glu	Glu	Glu	Glu	Ala	Ser	Pro	Ser	Thr	Val	Thr	Leu	Leu	Gly	Ser	Gly
	690					695					700				
Glu	Gln	Glu	Asp	Glu	Ser	Ser	Pro	Trp	Phe	Glu	Ser	Glu	Thr	Gln	Ile
705					710					715					720
Phe	Cys	Ser	Glu	Leu	Thr	Thr	Ile	Cys	Cys	Ile	Ser	Ser	Phe	Ser	Glu
				725					730					735	
Tyr	Ile	Tyr	Lys	Trp	Cys	Ser	Val	Arg	Val	Ala	Leu	Tyr	Arg	Gln	Arg
			740					745					750		
Ser	Arg	Thr	Ala	Leu	Ser	Lys	Gly	Lys	Asp	Tyr	Leu	Val	Leu	Ala	Gln
		755					760					765			
Pro	Pro	Leu	Leu	Leu	Pro	Ala	Glu	Ser	Val	Asp	Val	Ser	Val	Leu	Gln
	770					775					780				
Pro	Leu	Ser	Gly	Glu	Leu	Glu	Asn	Thr	Asn	Ile	Glu	Arg	Glu	Ala	Glu
785					790					795					800
Thr	Val	Val	Leu	Gly	Asp	Leu	Ser	Ser	Ser	Met	His	Gln	Asp	Asp	Leu
				805					810					815	
Val	Asn	His	Thr	Val	Asp	Ala	Val	Glu	Leu	Glu	Pro	Ser	His	Ser	Gln
			820					825					830		
Thr	Leu	Ser	Gln	Ser	Leu	Leu	Leu	Asp	Ile	Thr	Pro	Glu	Ile	Asn	Pro
		835					840					845			
Leu	Pro	Lys	Ile	Glu	Val	Ser	Glu	Ser	Val	Glu	Tyr	Glu	Ala	Gly	His
	850					855					860				
Ile	Pro	Ser	Pro	Val	Ile	Pro	Gln	Glu	Ser	Ser	Val	Glu	Ile	Asp	Asn
865					870					875					880
Glu	Thr	Glu	Gln	Lys	Ser	Glu	Ser	Phe	Ser	Ser	Ile	Glu	Lys	Pro	Ser
				885					890					895	
Ile	Thr	Tyr	Glu	Thr	Asn	Lys	Val	Asn	Glu	Leu	Met	Asp	Asn	Ile	Ile
			900					905					910		
Lys	Glu	Asp	Val	Asn	Ser	Met	Gln	Ile	Phe	Thr	Lys	Leu	Ser	Glu	Thr
		915					920					925			
Ile	Val	Pro	Pro	Ile	Asn	Thr	Ala	Thr	Val	Pro	Asp	Asn	Glu	Asp	Gly
	930					935					940				
Glu	Ala	Lys	Met	Asn	Ile	Ala	Asp	Thr	Ala	Lys	Gln	Thr	Leu	Ile	Ser
945					950					955					960

Val Val Asp Ser Ser Ser Leu Pro Glu Val Lys Glu Glu Glu Gln Ser
 965 970 975
 Pro Glu Asp Ala Leu Leu Arg Gly Leu Gln Arg Thr Ala Thr Asp Phe
 980 985 990
 Tyr Ala Glu Leu Gln Asn Ser Thr Asp Leu Gly Tyr Ala Asn Gly Asn
 995 1000 1005
 Leu Val His Gly Ser Asn Gln Lys Glu Ser Val Phe Met Arg Leu Asn
 1010 1015 1020
 Asn Arg Ile Lys Ala Leu Glu Val Asn Met Ser Leu Ser Gly Arg Tyr
 1025 1030 1035 1040
 Leu Glu Glu Leu Ser Gln Arg Tyr Arg Lys Gln Met Glu Glu Met Gln
 1045 1050 1055
 Lys Ala Phe Asn Lys Thr Ile Val Lys Leu Gln Asn Thr Ser Arg Ile
 1060 1065 1070
 Ala Glu Glu Gln Asp Gln Arg Gln Thr Glu Ala Ile Gln Leu Leu Gln
 1075 1080 1085
 Ala Gln Leu Thr Asn Met Thr Gln Leu Val Ser Asn Leu Ser Ala Thr
 1090 1095 1100
 Val Ala Glu Leu Lys Arg Glu Val Ser Asp Arg Gln Ser Tyr Leu Val
 1105 1110 1115 1120
 Ile Ser Leu Val Leu Cys Val Val Leu Gly Leu Met Leu Cys Met Gln
 1125 1130 1135
 Arg Cys Arg Asn Thr Ser Gln Phe Asp Gly Asp Tyr Ile Ser Lys Leu
 1140 1145 1150
 Pro Lys Ser Asn Gln Tyr Pro Ser Pro Lys Arg Cys Phe Ser Ser Tyr
 1155 1160 1165
 Asp Asp Met Asn Leu Lys Arg Arg Thr Ser Phe Pro Leu Met Arg Ser
 1170 1175 1180
 Lys Ser Leu Gln Leu Thr Gly Lys Glu Val Asp Pro Asn Asp Leu Tyr
 1185 1190 1195 1200
 Ile Val Glu Pro Leu Lys Phe Ser Pro Glu Lys Lys Lys Lys Arg Cys
 1205 1210 1215
 Lys Tyr Lys Ile Glu Lys Ile Glu Thr Ile Lys Pro Glu Glu Pro Leu
 1220 1225 1230
 His Pro Ile Ala Asn Gly Asp Ile Lys Gly Arg Lys Pro Phe Thr Asn
 1235 1240 1245
 Gln Arg Asp Phe Ser Asn Met Gly Glu Val Tyr His Ser Ser Tyr Lys
 1250 1255 1260
 Gly Pro Pro Ser Glu Gly Ser Ser Glu Thr Ser Ser Gln Ser Glu Glu
 1265 1270 1275 1280
 Ser Tyr Phe Cys Gly Ile Ser Ala Cys Thr Ser Leu Cys Asn Gly Gln
 1285 1290 1295
 Ser Gln Lys Thr Lys Thr Glu Lys Arg Ala Leu Lys Arg Arg Arg Ser
 1300 1305 1310
 Lys Val Gln Asp Gln Gly Lys Leu Ile Lys Thr Leu Ile Gln Thr Lys
 1315 1320 1325
 Ser Gly Ser Leu Pro Ser Leu His Asp Ile Ile Lys Gly Asn Lys Glu
 1330 1335 1340
 Ile Thr Val Gly Thr Phe Gly Val Thr Ala Val Ser Gly His Ile
 1345 1350 1355 1359

<210> 1206

<211> 1358

<212> PRT

<213> Homo sapiens

<400> 1206

Met Gly Ala Asp Gly Glu Thr Val Val Leu Lys Asn Met Leu Ile Gly
 1 5 10 15
 Val Asn Leu Ile Leu Leu Gly Ser Met Ile Lys Pro Ser Glu Cys Gln
 20 25 30

Leu	Glu	Val	Thr	Thr	Glu	Arg	Val	Gln	Arg	Gln	Ser	Val	Glu	Glu	Glu
		35					40					45			
Gly	Gly	Ile	Ala	Asn	Tyr	Asn	Thr	Ser	Ser	Lys	Glu	Gln	Pro	Val	Val
	50					55					60				
Phe	Asn	His	Val	Tyr	Asn	Ile	Asn	Val	Pro	Leu	Asp	Asn	Leu	Cys	Ser
	65				70					75					80
Ser	Gly	Leu	Glu	Ala	Ser	Ala	Glu	Gln	Glu	Val	Ser	Ala	Glu	Asp	Glu
				85					90					95	
Thr	Leu	Ala	Glu	Tyr	Met	Gly	Gln	Thr	Ser	Asp	His	Glu	Ser	Gln	Val
			100					105						110	
Thr	Phe	Thr	His	Arg	Ile	Asn	Phe	Pro	Lys	Lys	Ala	Cys	Pro	Cys	Ala
		115				120						125			
Ser	Ser	Ala	Gln	Val	Leu	Gln	Glu	Leu	Leu	Ser	Arg	Ile	Glu	Met	Leu
		130				135					140				
Glu	Arg	Glu	Val	Ser	Val	Leu	Arg	Asp	Gln	Cys	Asn	Ala	Asn	Cys	Cys
	145				150					155					160
Gln	Glu	Ser	Ala	Ala	Thr	Gly	Gln	Leu	Asp	Tyr	Ile	Pro	His	Cys	Ser
				165					170					175	
Gly	His	Gly	Asn	Phe	Ser	Phe	Glu	Ser	Cys	Gly	Cys	Ile	Cys	Asn	Glu
			180					185						190	
Gly	Trp	Phe	Gly	Lys	Asn	Cys	Ser	Glu	Pro	Tyr	Cys	Pro	Leu	Gly	Cys
		195				200						205			
Ser	Ser	Arg	Gly	Val	Cys	Val	Asp	Gly	Gln	Cys	Ile	Cys	Asp	Ser	Glu
		210				215					220				
Tyr	Ser	Gly	Asp	Asp	Cys	Ser	Glu	Leu	Arg	Cys	Pro	Thr	Asp	Cys	Ser
	225				230					235					240
Ser	Arg	Gly	Leu	Cys	Val	Asp	Gly	Glu	Cys	Val	Cys	Glu	Glu	Pro	Tyr
				245					250					255	
Thr	Gly	Glu	Asp	Cys	Arg	Glu	Leu	Arg	Cys	Pro	Gly	Asp	Cys	Ser	Gly
			260					265					270		
Lys	Gly	Arg	Cys	Ala	Asn	Gly	Thr	Cys	Leu	Cys	Glu	Glu	Gly	Tyr	Val
		275				280						285			
Gly	Glu	Asp	Cys	Gly	Gln	Arg	Gln	Cys	Leu	Asn	Ala	Cys	Ser	Gly	Arg
	290					295					300				
Gly	Gln	Cys	Glu	Glu	Gly	Leu	Cys	Val	Cys	Glu	Glu	Gly	Tyr	Gln	Gly
	305				310					315					320
Pro	Asp	Cys	Ser	Ala	Val	Ala	Pro	Pro	Glu	Asp	Leu	Arg	Val	Ala	Gly
				325					330					335	
Ile	Ser	Asp	Arg	Ser	Ile	Glu	Leu	Glu	Trp	Asp	Gly	Pro	Met	Ala	Val
			340					345					350		
Thr	Glu	Tyr	Val	Ile	Ser	Tyr	Gln	Pro	Thr	Ala	Leu	Gly	Gly	Leu	Gln
		355				360						365			
Leu	Gln	Gln	Arg	Val	Pro	Gly	Asp	Trp	Ser	Gly	Val	Thr	Ile	Thr	Glu
	370					375					380				
Leu	Glu	Pro	Gly	Leu	Thr	Tyr	Asn	Ile	Ser	Val	Tyr	Ala	Val	Ile	Ser
	385				390					395					400
Asn	Ile	Leu	Ser	Leu	Pro	Ile	Thr	Ala	Lys	Val	Ala	Thr	His	Leu	Ser
				405					410					415	
Thr	Pro	Gln	Gly	Leu	Gln	Phe	Lys	Thr	Ile	Thr	Glu	Thr	Thr	Val	Glu
			420					425					430		
Val	Gln	Trp	Glu	Pro	Phe	Ser	Phe	Ser	Phe	Asp	Gly	Trp	Glu	Ile	Ser
		435				440					445				
Phe	Ile	Pro	Lys	Asn	Asn	Glu	Gly	Gly	Val	Ile	Ala	Gln	Val	Pro	Ser
	450					455					460				
Asp	Val	Thr	Ser	Phe	Asn	Gln	Thr	Gly	Leu	Lys	Pro	Gly	Glu	Glu	Tyr
	465				470					475					480
Ile	Val	Asn	Val	Val	Ala	Leu	Lys	Glu	Gln	Ala	Arg	Ser	Pro	Pro	Thr
				485				490						495	
Ser	Ala	Ser	Val	Ser	Thr	Val	Ile	Asp	Gly	Pro	Thr	Gln	Ile	Leu	Val
			500					505					510		
Arg	Asp	Val	Ser	Asp	Thr	Val	Ala	Phe	Val	Glu	Trp	Ile	Pro	Pro	Arg
		515				520						525			
Ala	Lys	Val	Asp	Phe	Ile	Leu	Leu	Lys	Tyr	Gly	Leu	Val	Gly	Gly	Glu
	530					535					540				

Gly	Gly	Arg	Thr	Thr	Phe	Arg	Leu	Gln	Pro	Pro	Leu	Ser	Gln	Tyr	Ser
545					550					555					560
Val	Gln	Ala	Leu	Arg	Pro	Gly	Ser	Arg	Tyr	Glu	Val	Ser	Val	Ser	Ala
				565					570						575
Val	Arg	Gly	Thr	Asn	Glu	Ser	Asp	Ser	Ala	Thr	Thr	Gln	Phe	Thr	Thr
			580					585					590		
Glu	Ile	Asp	Ala	Pro	Lys	Asn	Leu	Arg	Val	Gly	Ser	Arg	Thr	Ala	Thr
		595					600					605			
Ser	Leu	Asp	Leu	Glu	Trp	Asp	Asn	Ser	Glu	Ala	Glu	Val	Gln	Glu	Tyr
	610					615					620				
Lys	Val	Val	Tyr	Ser	Thr	Leu	Ala	Gly	Glu	Gln	Tyr	His	Glu	Val	Leu
625						630				635					640
Val	Pro	Arg	Gly	Ile	Gly	Pro	Thr	Thr	Arg	Ala	Thr	Leu	Thr	Asp	Leu
				645					650						655
Val	Pro	Gly	Thr	Glu	Tyr	Gly	Val	Gly	Ile	Ser	Ala	Val	Met	Asn	Ser
			660					665					670		
Gln	Gln	Ser	Val	Pro	Ala	Thr	Met	Asn	Ala	Arg	Thr	Glu	Leu	Asp	Ser
		675					680					685			
Pro	Arg	Asp	Leu	Met	Val	Thr	Ala	Ser	Ser	Glu	Thr	Ser	Ile	Ser	Leu
	690					695						700			
Ile	Trp	Thr	Lys	Ala	Ser	Gly	Pro	Ile	Asp	His	Tyr	Arg	Ile	Thr	Phe
705					710					715					720
Thr	Pro	Ser	Ser	Gly	Ile	Ala	Ser	Glu	Val	Thr	Val	Pro	Lys	Asp	Arg
				725					730						735
Thr	Ser	Tyr	Thr	Leu	Thr	Asp	Leu	Glu	Pro	Gly	Ala	Glu	Tyr	Ile	Ile
			740					745					750		
Ser	Val	Thr	Ala	Glu	Arg	Gly	Arg	Gln	Gln	Ser	Leu	Glu	Ser	Thr	Val
		755					760					765			
Asp	Ala	Phe	Thr	Gly	Phe	Arg	Pro	Ile	Ser	His	Leu	His	Phe	Ser	His
	770					775					780				
Val	Thr	Ser	Ser	Ser	Val	Asn	Ile	Thr	Trp	Ser	Asp	Pro	Ser	Pro	Pro
785					790					795					800
Ala	Asp	Arg	Leu	Ile	Leu	Asn	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Glu	Glu
				805					810						815
Met	Met	Glu	Val	Ser	Leu	Asp	Ala	Thr	Lys	Arg	His	Ala	Val	Leu	Met
			820					825					830		
Gly	Leu	Gln	Pro	Ala	Thr	Glu	Tyr	Ile	Val	Asn	Leu	Val	Ala	Val	His
		835					840					845			
Gly	Thr	Val	Thr	Ser	Glu	Pro	Ile	Val	Gly	Ser	Ile	Thr	Thr	Gly	Ile
	850					855					860				
Asp	Pro	Pro	Lys	Asp	Ile	Thr	Ile	Ser	Asn	Val	Thr	Lys	Asp	Ser	Val
865					870					875					880
Met	Val	Ser	Trp	Ser	Pro	Pro	Val	Ala	Ser	Phe	Asp	Tyr	Tyr	Arg	Val
				885					890						895
Ser	Tyr	Arg	Pro	Thr	Gln	Val	Gly	Arg	Leu	Asp	Ser	Ser	Val	Val	Pro
			900					905					910		
Asn	Thr	Val	Thr	Glu	Phe	Thr	Ile	Thr	Arg	Leu	Asn	Pro	Ala	Thr	Glu
		915					920						925		
Tyr	Glu	Ile	Ser	Leu	Asn	Ser	Val	Arg	Gly	Arg	Glu	Glu	Ser	Glu	Arg
	930					935					940				
Ile	Cys	Thr	Leu	Val	His	Thr	Ala	Met	Asp	Asn	Pro	Val	Asp	Leu	Ile
945					950					955					960
Ala	Thr	Asn	Ile	Thr	Pro	Thr	Glu	Ala	Leu	Leu	Gln	Trp	Lys	Ala	Pro
				965					970						975
Val	Gly	Glu	Val	Glu	Asn	Tyr	Val	Ile	Val	Leu	Thr	His	Phe	Ala	Val
			980					985					990		
Ala	Gly	Glu	Thr	Ile	Leu	Val	Asp	Gly	Val	Ser	Glu	Glu	Phe	Arg	Leu
		995					1000					1005			
Val	Asp	Leu	Leu	Pro	Ser	Thr	His	Tyr	Thr	Ala	Thr	Met	Tyr	Ala	Thr
	1010					1015									
Asn	Gly	Pro	Leu	Thr	Ser	Gly	Thr	Ile	Ser	Thr	Asn	Phe	Ser	Thr	Leu
1025					1030					1035					1040
Leu	Asp	Pro	Pro	Ala	Asn	Leu	Thr	Ala	Ser	Glu	Val	Thr	Arg	Gln	Ser
				1045					1050						1055

Ala Leu Ile Ser Trp Gln Pro Pro Arg Ala Glu Ile Glu Asn Tyr Val
 1060 1065 1070
 Leu Thr Tyr Lys Ser Thr Asp Gly Ser Arg Lys Glu Leu Ile Val Asp
 1075 1080 1085
 Ala Glu Asp Thr Trp Ile Arg Leu Glu Gly Leu Leu Glu Asn Thr Asp
 1090 1095 1100
 Tyr Thr Val Leu Leu Gln Ala Ala Gln Asp Thr Thr Trp Ser Ser Ile
 1105 1110 1115 1120
 Thr Ser Thr Ala Phe Thr Thr Gly Gly Arg Val Phe Pro His Pro Gln
 1125 1130 1135
 Asp Cys Ala Gln His Leu Met Asn Gly Asp Thr Leu Ser Gly Val Tyr
 1140 1145 1150
 Pro Ile Phe Leu Asn Gly Glu Leu Ser Gln Lys Leu Gln Val Tyr Cys
 1155 1160 1165
 Asp Met Thr Thr Asp Gly Gly Gly Trp Ile Val Phe Gln Arg Arg Gln
 1170 1175 1180
 Asn Gly Gln Thr Asp Phe Phe Arg Lys Trp Ala Asp Tyr Arg Val Gly
 1185 1190 1195 1200
 Phe Gly Asn Val Glu Asp Glu Phe Trp Leu Gly Leu Asp Asn Ile His
 1205 1210 1215
 Arg Ile Thr Ser Gln Gly Arg Tyr Glu Leu Arg Val Asp Met Arg Asp
 1220 1225 1230
 Gly Gln Glu Ala Ala Phe Ala Ser Tyr Asp Arg Phe Ser Val Glu Asp
 1235 1240 1245
 Ser Arg Asn Leu Tyr Lys Leu Arg Ile Gly Ser Tyr Asn Gly Thr Ala
 1250 1255 1260
 Gly Asp Ser Leu Ser Tyr His Gln Gly Arg Pro Phe Ser Thr Glu Asp
 1265 1270 1275 1280
 Arg Asp Asn Asp Val Ala Val Thr Asn Cys Ala Met Ser Tyr Lys Gly
 1285 1290 1295
 Ala Trp Trp Tyr Lys Asn Cys His Arg Thr Asn Leu Asn Gly Lys Tyr
 1300 1305 1310
 Gly Glu Ser Arg His Ser Gln Gly Ile Asn Trp Tyr His Trp Lys Gly
 1315 1320 1325
 His Glu Phe Ser Ile Pro Phe Val Glu Met Lys Met Arg Pro Tyr Asn
 1330 1335 1340
 His Arg Leu Met Ala Gly Arg Lys Arg Gln Ser Leu Gln Phe
 1345 1350 1355 1358

<210> 1207

<211> 166

<212> PRT

<213> Homo sapiens

<400> 1207

Met Ala Ser Gly Val Thr Val Asn Asp Glu Val Ile Lys Val Phe Asn
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 Asp Met Lys Val Arg Lys Ser Ser Thr Gln Glu Glu Ile Lys Lys Arg
 20 25 30
 Lys Lys Ala Val Leu Phe Cys Leu Ser Asp Asp Lys Arg Gln Ile Ile
 35 40 45
 Val Glu Glu Ala Lys Gln Ile Leu Val Gly Asp Ile Gly Asp Thr Val
 50 55 60
 Glu Asp Pro Tyr Thr Ser Phe Val Lys Leu Leu Pro Leu Asn Asp Cys
 65 70 75 80
 Arg Tyr Ala Leu Tyr Asp Ala Thr Tyr Glu Thr Lys Glu Ser Lys Lys
 85 90 95
 Glu Asp Leu Val Phe Ile Phe Trp Ala Pro Glu Ser Ala Pro Leu Lys
 100 105 110
 Ser Lys Met Ile Tyr Ala Ser Ser Lys Asp Ala Ile Lys Lys Lys Phe
 115 120 125